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Eighty-six persons representing vocational education, the Employment Service, the Labor Department, and community colleges attended the conference designed to develop an understanding of the cooperative planning and techniques needed to conduct manpower surveys and to analyze and implement their findings. The conference, coordinated by the Labor Education Center and the School of Education of the University of Connecticut and the Connecticut State Departments of Education and Labor, was held in Storrs, Connecticut July 8-12, 1968. Speeches by representatives of state departments of vocational education, the Office of Education, the Bureau of Labor Statistics, the Employment Service, the Bureau of the Census, state labor departments, private research organizations, and state universities presented in the report relate to: (1) the need for manpower information, (2) national, state, and local sources of information, (3) utilization and effectiveness of data, (4) coordination in obtaining data, and (5) information to meet special needs. A summary of workshop discussions is also presented. Thirteen recommendations adopted by the Conference are included. (JK)

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CONFERENCE ON MANPOWER SURVEYS FOR VOCATIONAL-TECHNICAL EDUCATIONAL PLANNING

David Pinsky
Labor Education Center
The University of Connecticut
Storrs, Connecticut

January 31, 1969

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SUMMARY

Title: Conference on Manpower Surveys for Vocational-Technical Educational Planning.

Coordinating Agencies: University of Connecticut Labor Education Center
University of Connecticut School of Education
Connecticut State Department of Education
Connecticut State Department of Labor

Duration: July 8-12, 1968

Objectives

The purpose of this Conference was to bring together Vocational Education, Employment Service, Labor Department, University and other personnel engaged in manpower research and planning, and to develop an understanding of the cooperative planning and techniques needed to conduct manpower surveys and to analyze and implement their findings.

Implementation

The Conference was conducted at the University of Connecticut, Storrs, Connecticut from July 8 through July 12, 1968. Participating in the Conference were 86 persons representing Vocational Education, the Employment Service, the Labor Department and Community Colleges and having some experience in and responsibility for determining vocational-educational programs or present and future manpower needs. Stipends and travel expenses were paid to participants. Certificates were presented at the close of the Conference.

The program consisted of lectures on the need for manpower information, availability of manpower data for vocational-technical education - national, state and local sources, utilization and effectiveness of manpower data, coordination in obtaining manpower data and manpower information to meet special needs. These lectures were delivered by representatives of State Departments of Vocational Education, the Office of Education, Bureau of Labor Statistics, Employment Service, Bureau of the Census, State Labor Departments, private research organizations and state universities. They were followed by question and answer sessions.

A chairman and recorder chosen in each workshop conducted the afternoon sessions and reported their group's findings in a late afternoon assembly.

The formal program was held from 9:00 to 4:30 Monday through Thursday and from 9:00 to 1:00 on Friday. Evening gatherings were of a social nature planned to encourage informal exchange of ideas among participants.

Overall reaction to the Conference was favorable. Participants reported that speakers generally were helpful to them in increasing their knowledge of the need for various types of manpower data and the availability of data from new or not previously considered sources. Several participants, however, were disappointed in lack of specific information on the actual methods of conducting manpower research.

Of benefit to almost all conferees was the opportunity to meet with members of other agencies with whom they were supposed to be dealing. Most participants felt that the sharing of views, problems and needs with these representatives would result in a better, more productive working relationship.

An indication that the Conference was considered worthwhile was the fact that participants recommended similar conferences be held, perhaps on a smaller, regional basis. Several recommendations were forwarded to the U.S. Office of Education among which was that an ad hoc committee be formed to prepare the format for a follow-up Conference. This follow-up, a workshop, would draw up precise recommendations for implementation of a system for the distribution of manpower data.

Also recommended was the establishment in each state of an active liaison committee of the State Employment Service and the Division of Vocational Education to improve communication for a basis of better cooperation in planning vocational programs to meet manpower needs.

INTRODUCTION

As a result of the rapid technological changes taking place in business and industry, surveys of manpower and training needs are extremely vital in the field of vocational-technical education. In order to be meaningful and effective, vocational technical education programs must be based on the needs of business and industry as well as on the interests and abilities of students. An analysis of the current and projected labor market is, therefore, basic to intelligent planning for vocational-technical education facilities, programs and curricula.

Because of these problems throughout the nation, it was felt that a conference dealing with these subjects would be beneficial to vocational educators concerned with planning programs and facilities. The plan of the conference was carried out by four groups: The Labor Education Center and the School of Education of the University of Connecticut, Connecticut State Department of Labor and the Division of Vocational Education of the State Department of Education.

The general purpose of the Conference was to bring together vocational education, employment service, labor department, community college and other personnel engaged in manpower research and planning, and to develop an understanding of the cooperative planning and techniques needed to conduct manpower surveys and to analyze and implement their findings.

This objective was accomplished through a series of morning lectures presented by representatives of State Departments of Vocational Education, the U.S. Office of Education, U.S. Bureau of Labor Statistics, U.S. Employment Service, Bureau of the Census, State Labor Departments, private research organizations and State Universities. These lectures were followed by question and answer periods which encouraged further development of the day's topic. Small afternoon workshops were generally devoted to discussion of the morning's program. During a late afternoon plenary session reports of workshop proceedings were presented to the entire assembly.

The conference was held at the University of Connecticut at Storrs, Connecticut from July 8 through July 12, 1968. It was attended by 86 participants from 39 states. These conferees who represented vocational education on state, local and community college levels, the Labor Department and the Employment Service had some responsibility for determining educational program needs and/or state and local manpower needs.

Topics developed through lecture and discussion were: the need for manpower information, availability of manpower data for vocational-technical education - national, state and local sources, utilization and effectiveness of manpower data, coordination in obtaining manpower data and manpower information to meet special needs.

In addition to benefits derived from the formal program conferees profited from the informal exchange of ideas with members from within their own agency and from interaction between agencies. Review of the needs and problems of both vocational education and the employment service promoted greater understanding of the role of each agency, their interrelationship, and of the mutual benefits that would result from increasing cooperation.

Toward the end of the conference participants approved 13 recommendations which had been discussed during the workshop sessions and voted that these be forwarded to the U.S. Office of Education in advance of the final report. These recommendations are listed later in this report.

NEED FOR MANPOWER INFORMATION

By Raymond F. Male
Commissioner of Labor
State of New Jersey

Since the decade 1893 to 1903 the purpose of the manpower and education mix has been to sell programs for social revolution. The Commissioners of New Jersey and the Ministers of Canada met recently to discuss the inevitable partnership of labor and education. In British Columbia the departments of Labor and Education are combined under one Commissioner. It is felt that with the manpower needs of the twentieth century the two couldn't be separate.

In addition to this inevitable partnership I also want to talk to you about communication between the segments - the righthand, left-hand business. For the last 25 years we have been working in various capacities dealing with the problem of trying to keep New Jersey viable. There have been few opportunities to get together. The Kennedy administration provided the first official bridge. Results were halting. Intradisciplinary and intraagency Parkinsonian growth prevented great progress.

Down where we were living we were nervous because the Employment Service establishment for a quarter of a century or more has been playing the game one way while the Vocational Ed establishment was playing the game several other ways. There's a lot of different kinds of influences and it has taken, I would say, at least seven years even in a little place like New Jersey - a little province that's so small you could travel around it in a day easily and cover every one of the 21 counties. We're only now proudly working together in terms of thinking together, not only programming together.

I would say another thing in addition to the separatism that the Canadians recognized earlier than we did, perhaps, and that is that both of us suffer from one important thing which ought to make us work well together. We both represent disciplines which are second class citizens in our own families. Take mine first. You look at any Department of Labor, any public employment service or manpower agency, however it may be structured in the country, you will find that traditionally those are not the number one glamour agencies of State government, or indeed of the United States Government. The glamour agencies are doing something else. They are building roads or collecting taxes or they are doing something else. They are not the manpower agencies.

You, those of you, or those of us (I like to feel that soon maybe I could have a foot in both camps if we could get the camps a little closer together), those of us who have been more primarily concerned with vocational education, if we're honest with ourselves, have to admit that whether it be in a public school system, whether it be in a college or university campus, whether it be in the thinking of the people of the country as a whole, we, too, in that light are second class citizens in the entire educational effort.

When the first little Sputnik, unmanned, was spinning around, the great effort then to get people vocationally trained for what needed to be done in this world did not end up in your bailiwick. Did it? It ended up with great money being spent in engineering and basic sciences and so on. And the business, the important business, of teaching people how to earn a living with their hands as well as with their heads, and I always add, with their hearts, because in the health industry which you just made a magnificent study of, this is more important perhaps than hands and heads rolled together. I hope that by the end of this week we meeting here in this music room can orchestrate a kind of feeling that will take us away from this tom-tom tympani bit of discordance. I love modern music so don't any of you get me wrong on that - I just mean that we've got to do more than just beat drums in order to get the kind of symphony we need in terms of vocational preparation and in terms of the kind of mix that will make it.

I don't see the manpower world as the be-all and end-all either. I see both of them as key number one first class ingredients for getting down to the unfinished business of this country. Now what is some of the unfinished business that is involved? On this you don't need to take notes because if you are alive and breathing you just have to have a morning newspaper.

The whole business related to this workshop of the kind of world we're living in where all of us are so damned rich, all of us in this room, and there are all of those out there - you don't have to go more than ten miles, maybe one mile to see them - who are so damned poor. Some call it affluent, some call it disadvantaged. I hate labels, I use a lot of them, but what I'm talking to you about is the fact that this institute must get its hands on that number one priority, which is the big priority, not whether there is adequate policing in the streets, law and order. All that is the surface symptom or distortion that will come from the inadequacy of our treatment of the more basic problem which is that we have in my little New Jersey hundreds of thousands of major bread winners who are working full time - I'm not talking about race, religion or any of those things - working full time who do not earn enough to pay the rent and buy the groceries, much less take care of the education or health care needs of their families. This is related to what you guys are doing. Are we using the combined muscle of the preparing of people for vocations and the guys who send them out to vocations through public agencies which alert to them the needs in the country? Signal through all this data you're going to massage this week are the great opportunities - unmet needs. Are you signaling great unmet needs that send them into poverty? I think you are, because even Dave will signal them into the great unmet needs of hospital and medical care in the country. Americans tend to think of medical care as doctors but if you had worked as I have in back wards of State mental hospitals for seven years, you'd know that long before a psychiatrist,or M.D., or R.N., or O.R.T., or any of those labels gets near a patient, somebody warm, vibrant, knowing and loving called an aide, an attendant, orderly, you name it what you will, a technician is going to be with that patient. That's what this game is all about. It relates to civil rights. It relates to minimum wages. It relates to vocational education and it relates to Employment Service programs if they are worthy - which they are not.

Now I get nervous about kids. My favorite hobby is working with kids and in the great spectrum of kids from birth to 99 my favorite age is the kind of rumbly, bumbly bunch called teenagers. Every Friday night unless I'm making a speech somewhere, which is rare, I don't give those Friday nights up easily, I have a bunch of kids who do a show with me called "Youth Speaks Up." I merely throw nasty questions. I never make a comment. Nobody knows how I feel about anything, but I ask them questions about their own important things like sex and education and jobs and L.S.D., their future, their parents and all the rest. Try that sometime. Ask these kids and you will not find out what school counselors are finding out, what rehabilitation and Employment Service counselors are finding out from these kids.

One night we were talking about getting into colleges. Six or eight bright kids were screaming about how they had applied to six different places and were going to do this. I asked my dumb question #310. "Why are you going to college?"

"Because my Mom says so, or Pop did."

"Why did you pick that college?"

"Because Dad went there" or "My uncle went there" or "It was cheaper" or "It was nearer home" or " . . . farther from home" depending on the kid's point of view.

You've heard all that but what I want to get down to is through their voices I heard this come through. I finally said to the whole bunch, "Look kids you're in such a sweat about getting rejection letters. Let's suppose for a minute, hypothetically now, if all those six or eight colleges you've sent applications to and transcripts to said 'No', then what?"

One pretty little blonde about 18 smiled and the greatest look of peacefulness and beauty came over her face and she said right into the radio tape, "I think that would be the greatest day of my life!"

I don't know why you laugh. I thought that was a pretty serious if not a tragic thing. It was obviously a case where the counselor had not missed. She was a brilliant student and she got accepted at all of the schools where she had applied.

The fact is when I questioned a second minute on that I said, "Why would that be the happiest day in your life?" They all wanted to answer that.

"Because it would give us," they said, "at least a year to think."

Isn't that interesting? We do not provide in all of K to 12 not a year to think, not a month to think. We damn near don't provide five minutes to think about what you are here to spend a week thinking about and that's terribly important. In this need for manpower information the biggest need we've got is how you can get the information to these kids as to where they can take time to think. I know there's rebuttal to this. I know kids spend a lot of time hacking around on Hondas, on Mustangs. They go to the movies, they watch television, they do homework and all, but you look at it. I'm talking about the kind of constructive thinking. I tell you I've checked this out not only in New Jersey, where these kids are from, but in other States where I've visited since then. There are kids who want to think about this and they don't know where you are and you don't know where they are.

The toughest ones to talk to and to help listen and think are your own because there's the magic chemistry in which your own kids don't feel the old man's got quite as much savvy as somebody else's kids have. But the fact is this is terribly important and it's related to this business of the so-called identity crises and riots.

Why is it that all the great things that America has put its manpower and its vocational education and professional discipline money investment in, in the main, is set up for the 20 out of 100 who are getting their diploma? I don't like what Dave Pinsky said about this. He said that those who are college bound get vocational guidance so you don't have to worry about them. I've got news for him. You people in vocational education as well as in manpower don't assume the college bound kid, the one who's got the brains, the dough, the whole schmear, don't assume he's had vocational guidance. He hasn't. He's had catalog guidance and that's a very different thing.

Part of my "Youth Speaks Up" learning is not only to have these kids on in their sophomore, junior and senior years but to have reunions for them at Christmas, Easter and summer vacations, individually and in groups. They all tell me how many times they've changed their major because they didn't know what was in the world until they got out there. I learned to applaud that four times in four years change of major. I think this is great. It's part of their growing up and yet the guidance department thinks that's terrible. I know that among the one half who don't make it a large part of that casualty is they never should have made Step I in the first place.

There are kinds of priorities and demands upon the talent of these people that are not being properly guided, measured, however you want to say it. They have the absolute power to make the right decision if they get a chance to make it. I submit to you that in my extensive experience in public as well as private school systems in that little ivy clad town that was mentioned earlier, we do not yet have the kinds of advice I am talking about, the kinds of silence in which they can think and plan for the important future for all of us, not just their future.

I'm looking for the next Commissioner of Labor and Industry to come in and take my place. I was appointed for three months, nine years ago, and the Governor said as soon as he could find somebody who can get along with labor and industry both, I could go. You know in a State with 7 million people he's still looking. It's ridiculous.

I just want to point out to you one more thing that is on specifics. Six years ago I asked the U.S. Government, the august Bureau of Employment Security, for 100 bodies, 100 men and women. I wanted to put one of them in each of the 100 largest public, private, and parochial high schools in New Jersey. Why did I want to do it? Because I wanted to help fill that gap. I knew from talking to some great counselor friends of mine all over the State that they didn't have the foggiest notion of the ways to earn a living in a little place like New Jersey. You've got to bear in mind that in New Jersey, unlike many of your States, we don't have much underground and we don't grow much anymore above ground. What is terribly important to us is manpower. That's our only G.N.P., our only riches. So this is a crucial matter.

The U.S. Government said, "How ridiculous." They looked at the schools and they said, "They all have guidance people. They all do." That was mistake #1. Number two, they said, "That comes under a separate agency, a separate department. We don't do that, they do." The other agency didn't have the money either. That's when I learned again that vocational education and educational counseling not only are second class citizens within government, but that within education itself, counseling is a third class citizen.

I'm happy to say, however, that we are chiseling a little. I learned later instead of asking for additional money and additional people, I could rework the system when they weren't looking and just risk audit exceptions as to how I assigned teachers. Now we have begun assigning people and breaking them into the school system. My only problem now is fending off high schools and real good schools that want it, and there aren't enough of the kind of people I'm talking about. You know the kind of guy I'm looking for, the kind who goes in there and threads together his outlook on work study programs, on steering in the kids toward vocational programs whether or not they be college bound, and all those other mixes that make him an outreach ambassador to government, to industry, business, commerce, also a guy who can flap his wings wide enough to let them know that everybody who goes to Princeton High School doesn't have to wind up getting a job in Princeton. In fact 90 percent of them end up working in California, or Hawaii, or Vietnam. They ought to know that these places exist. They ought to know what the jobs are that exist out there.

Now just one quick word on the question for this morning in a general sense. Hopefully, it is to shape up what you will provide in specific answers, or problems for which we could find answers together, answers which would be on the needs for manpower information.

If I haven't convinced you we need information yet, I'll do it as fast as I can. I don't suspect we need to lecture. It would be like carrying coals to Newcastle. The fact is the need for it is #1. I can't do my job without the kind of manpower you are talking about, that ought to be obvious. I can't even run the department internally managing the thing without it.

Knowing for the last week that I was coming here, I had my secretary keep track of how many times how many guys came through my door. I would say to you the manpower statistical account guys are second only to my Mr. Budget or Mr. Personnel. (You can't blame me for having money come in a little more often than data.) The fact is nobody can run program, nobody can prepare for legislation which is more important than just the agency you're running. Legislation affects your State and the entire country. It cannot even be drafted intelligently without data. Big problems of MDT - you went through this, you must have - where if you passed a dream, you know the dreams of potential candidates . . . I remember when there were bills - Senate I and others way back when - and some guys were screaming we ought to do this. But we didn't have enough data to know that you couldn't just make contracts with institutions like yours and send adults or young people in to train for skills unless first they could read and write. Remember that problem? We had to go back and amend the whole blinking thing because it didn't have basic adult education written into preliminary vocational education, and field training and all the rest. That's what I mean by need for translating the data of what is, not just manpower data, data about people. We still have this 18th Century concept that we can take a census every ten years and run around making a little spot-check now and then and really know what's going on in the country. We cannot afford to do this. We need to know in this third generation, computer world and without being scared by "Look" magazine or anybody. We have got to figure out safe ways to get hard data about warm people that we need in order to thread these programs together. We can't operate without it.

The place where Bureaus of Labor Statistics began was within this area of collecting manpower data, and the reason I say Bureaus of Labor Statistics is if you will check your history you will find that in every State they preceded by many years any beginnings of the D O L concerned more broadly with types of safety and social insurance or with any kind of manpower program. All these things came later. If you'll look back at what has already been written you'll find out why they came. It was not because they were needed. There are a terribly lot of important things needed in this country that aren't coming yet. They came because some pretty knowledgeable guys saw the problem and decided it had to be measured. They used their crude devices for measuring.

In the case of my 1903 predecessor it was a questionnaire sent to every trade union in the State and to the internationals that represented them higher. The questions concerned whether or not they would let Negroes in their local union. Did their constitutional bylaws admit them or forbid them? These results were printed. Then on top of that they went to every employer in the State, big and small, shop owners, mill owners, mine owners, factory owners, the whole schmear, insurance companies, banks. If you want to know why there weren't any black bank tellers in New Jersey for another half century after this, read his report. Bank presidents told him and he printed it. Did we read it? No!

There are only two copies of this left in the world. One is gathering dust in our State archives as required by the laws of New Jersey. Nobody requires by law that anybody read them or use them. The second copy is on my desk. If I could put it in a glass box, hermetically seal it and put a spotlight over it, I would remind every visitor who comes into my office that what we are going to be talking about this week isn't new. It's an old problem which we have a new opportunity to lick.

That, it seems to me, is all I have to say about the need for manpower information. I could get specific with you but I think workshops will develop more of that in terms of nuts and bolts and programs of opportunities, whether it be on college campus, in high school or separate vocational school, whether State or Federal administrative agency working for county government, or a parish, or whether you're working for a State government in whatever discipline, the left hand-right hand theory applies. The awesome imperative of this togetherness of manpower information, the manpower people and the educational preparation people, and the sense of urgency are beyond my mere capacity to describe. That is why, against my better judgment, I crawled up here to try and see if I could help get you started this week, not sitting back waiting for somebody from the U.S. Office of Education, Bureau of the Census, BLS or BES or PDQ or any other place, to come and tell you how it's done. No. They would be the first to admit, as I will, that how it's to be done is out here, not only in this room but in all those rooms outside.

Now I am back where I was in the middle and that is saying that I think that often if you'll listen to the kids, giving a percent or two for tolerance for what some of you may think is immaturity but which I hear as the wisdom of the century speaking, you will find that they know. They know the kind of world into which we are going. They know how obsolete we are, not as people, but in methodology, the data bits, the program and project oriented people, always thinking that overnight we can solve this with something else.

You mentioned a far off place I had three great chances to visit. I learned much from the warm and wonderful people in South Vietnam. They taught me more about vocational preparation and manpower and use of it than I learned in New Jersey or anywhere else in the continental United States. They taught me this without pointing a finger at me or at us. They did it by demonstration. I saw there the great untapped resources of that country but I came back seeing even more, the great wasted resources of our own, because we have tapped them but I am not sure we have tapped them well or wisely.

THE NEED FOR MANPOWER INFORMATION

By Byrl Shoemaker, Director
Division of Vocational Education
State of Ohio

I come from a State in which we have a rather active governor who has a certain philosophy that can be stated in about four steps:

1. You can't produce less and get more. There's absolutely no way on God's green earth that you can produce less and give disadvantaged people more. There's just no way to do it.

2. If you buy this point of view then jobs, not welfare, is the answer.

3. Jobs don't depend on government, they depend on industry and business because government doesn't produce anything. Therefore, the most important thing he sees to this in Ohio is the growth of industry and business. If you have a loose one he'll be out there after it. The only way we are going to get more jobs is by growth of industry and business.

4. This is where we come in. The entrance into jobs today depends upon training, and therefore in his mind vocational and technical education are very important. This is not because he likes them as entities in themselves or believes in them philosophically, but he has the concept that training is important, and the more disadvantaged the people, the more important training before you shove them into industry. And forgive me but I think the NAB program is just wrong, the National Alliance of Business - the push-in concept - I believe is wrong, wrong for industry and business, wrong for me as a consumer, and wrong for the person shoved in. Oh, they'll do it. You get Ford and other people saying "Hire 'em!" and you guess what the man down the line's going to do. He's going to hire them. I know of industry people in our State who have been coerced to do this who don't believe in it. They're going to push them in. But whether they stay there, whether they're successful, whether they feel a part of industry or feel a part of a different welfare system in which industry's paying it, that's another question.

I believe sincerely in the partnership our first speaker spoke of. I feel it was too long in coming, that we have been pushed together by legislation, by actions, by needs. I still believe that perhaps it should remain a partnership at this point, rather than a marriage, because the state of the art in manpower prediction, in manpower decisions, I don't think is yet to the point in which we should make it a marriage.

I can't think of any better relationship I have in the State than I have with our Employment Service - they're called various things in various States - but I can't think of a better ally that I have in the State of Ohio than the head of our Employment Service, a man who understands more of what we need to be doing, of what we're trying to do, or gives us more support in this area. Yet I get a case of sick frustration when I hear from our Federal level "You stupid people in vocational education are training for obsolete skills. You don't know what you are doing. You're training for obsolete skills." This I hear constantly and I'm getting sick and tired of it. I appeared before a Senate committee and one of the people asked, "What about this statement that you're preparing for obsolete skills?" I gave the members of the committee a sheet of paper on which there happened to be trade and industrial. It listed all the occupations. I said, "Tell me one that's obsolete. Tell me one, and we'll stop it tomorrow." The answer is they don't know.

A recent national study made by the Manufacturers' Association, or by someone in that area, asking employers about vocational education got answers back that much of the training was not for the skills of jobs which they were offering. How many of those employers knew what was vocational education and how much was vocational instruction through industrial arts? How many of them knew? They pointed up so much woodworking being taught. We don't teach woodworking in vocational education in Ohio. We teach carpentry. Is that obsolete? Even studies that are being made--when you look into them, do the people who answer the questions know what you are talking about or do you give false information as you make the study?

There's been a hue and cry about our efforts in vocational agriculture and home economics. As I look at my own State, looking for projections in terms of needs of people and looking at what we are doing, I don't find that we are so far over in those areas as I find that we are so far under in everything else. Is the question so much one of overproduction in certain areas or underproduction in terms of training in other areas? It's my job to know, my job to find out, it's my job to change. I don't think you'll find any more willing people or interested people in getting accurate and usable manpower information than those of us in vocational education, and there's darn little available of the type that we can use to translate into training. It might be wonderful from the standpoint of economics but it's very difficult from the point of transferring it into training areas.

My first need as a State Director of Vocational Education is for gross manpower information, for gross understanding. I got into this situation when I used to take our staff out and one person would use Department of Commerce figures and he would say, "Fifty percent of the people are in the field of business." The next person would get up and he would use Department of Agriculture figures, "Fifty percent of the people are in agriculture," and somebody else would get up, "Fifty percent of the people are in sales." By the time we got done we had 250 percent of the people. Anybody can add up fifty percents pretty fast. So I had to say, "Whoa, now what is the pattern? What is the gross pattern of people in Ohio?" And, of course, you know every principal of high school I talked to said, "Oh, sixty percent of our people go to college."

I was doing a study in a State other than my own and I went to five different high schools in this city. Every one of them told me above 70 percent of their kids went to college. Now darn it, 'tain't so. So we had to find some gross figures. I know you don't give a hoot about Ohio. I have to live there. But I'm just going to show you the types of information we need, and you don't get it out of the Census data. You can't find it. Don't look at your Census data and try to get it unless you are willing to take that Census data and go through it detail by detail by detail. And that's what we finally had to do. When we got done we gave it to John Odgers' shop to audit it. I thought we might be suspect in the Division of Vocational Education so we said, "Guidance, you audit us." And here's what we found out in terms of our own State. We're a heavily industrialized State, technicians, skilled workers, semi-skilled workers, operatives, 42.2 percent; professionals, 7.6 percent. Now you won't believe it. I don't care whether you believe it or not. I can prove it. Agriculture, 3.7; off the farm, 5.3; clerical and office, 14.4; distribution, 14.7; others--baseball players, dancers, etc. - - . This is how people in our State were employed according to the 1960 Census. This may be poor data, I don't know, but you tell me a better source. People don't like that but I have another figure that supports it. Then we have such gross data as this. Here's how people study in high school. There are 77.2 percent saying they are going to college or general. Most of those kids are just taking 16-3/4 units credit to graduate from high school not prepared. As our Governor says, "90,000 unskilled, untrained people thrown on the labor market this spring and we spent $1.3 billion on education. Why?"

Then for those who think we need to know what happens to our people, we have to look at both sides of this equation, not only the manpower, we have to look at the people part, not only the numbers employed but what happens to people. In our State of Ohio here's what happens to people. They start the first grade - 100 start the first grade, 76 graduate. Don't laugh at Ohio until you look at your own State and look at it honestly in terms of the survival rate. I don't know where they get the "20 out of every 100 that start the first grade graduate from college." It's a national figure that I think is fiction. This 14 percent figure is our best projection rate in the State of Ohio with over 60 universities and colleges in our State. That's the best projection and an interim study in 1965 doesn't show it coming up to 14 percent in the 25-29 year olds. So we say, bluntly, the gross facts tell us that most of our kids aren't going to graduate from college. Most of them, 86 percent, aren't going to graduate from college in terms of our present state.

We had to know what gross figures there are in terms of what's going to happen to people of our State between '60's and '70's. Our Employment Service works with us in giving this. They tell us, for instance, that professional and technical is going to increase 55 percent, that means it goes from 7.6 to about 11 percent. But they tell us in management, clerical, sales, craftsmen, office, service, and off the farm agricultural occupations we need to know about the nature of our people in our State, not only from the standpoint of high school but vocational education's concern with them as long as they're in the workforce.

Here's the nature of our people in Ohio as far as their educational attainment is concerned. Only 7.2 percent of our people, according to the 1960 census, had four or more years of college. When people question my 7.6 I point up this in terms of the 7.2 percent of our people that have this.

We've done studies on student interest in which we could tell you that secretly these kids know what's going to happen to them. Secretly these kids are much more realistic that you ever believe. When you get the parent's hand off them over 70 percent of them identify that they should have training in an occupation. They know this, even though they hedge and say, "I think I might go to college", because that's the socially acceptable thing to say today, the socially acceptable thing to talk about - getting into college.

So I have to have gross data. Why? I've got to work with legislators. I have to work with parents. I have to work with school administrators and, darn it, I have to get their attention. And if you think I haven't used this kind of data to get the attention of people, you're crazy. If there's a soul in Ohio that hasn't seen these charts we'll be there tomorrow, because we watch the groups and as they look at them, as they talk about this, they've got to give their attention to something besides college preparatory education. There isn't any other answer as you look at the gross data about people in Ohio.

In our State we stick to an old organizational pattern. We're real, real mossbacks. We stick to an identification of very broad areas of agriculture, business, distribution, trade and industrial, homemaking. It's very simple, because this is about how our State breaks down into broad job categories. I happen to believe you can make more progress by looking vertically at the person from the time he starts into an occupation until he leaves it, or until he dies, than you can by worrying about high school and post high school and working this way.

I think some day the U.S. Office of Education again is going to discover the broad occupational categories. They can't look at vocational education as a whole. They've got to look at it in some organized fashion. Then they're going to rediscover this, because here I believe you can get more viability in those broad occupational categories, more relationship with the people running them in terms of labor and management, and a continuing personal concern for the workers from the time they start in those occupations until they either leave them for other types or leave them for retirement.

We had to next look in terms of occupations somewhat on geographical locations. I think I need to know in my State something about where the people work. Looking in terms of Ohio there are sixteen Standard Metropolitan Statistical Areas that are identified by our Employment Service, by the Department of Commerce, I guess, in terms of where people work. You can find that most of our people in our State work in these sixteen. As a matter of fact, about 83 percent of our people in our State work in the sixteen Standard Metropolitan Statistical Areas. This means one simple thing to me, most of the programming has to be pointed towards the influx of people into these Standard Metropolitan Statistical Areas. If they are not within a 45 mile driving distance, and this is what we find people will drive according to studies in our State, if they are not within that, I'd better begin to educate these people to leave where they are. We've learned this doesn't happen automatically. We've learned that people have to be educated to leave. We can't just educate them for skills and then hope they'll leave. A part of that training program must be involved or built around their willingness to go where the jobs are, and these sixteen Standard Metropolitan areas are where the jobs are today and where the jobs are going to be tomorrow.

I need to be kept up to date on the changes, growth and development, the organization of these. Just in terms of a quick look - if we look at the matter of employment taking 1966, in numbers of people in terms of total registered employment in Ohio we had 2,731,690 people. In the sixteen Standard Metropolitan Statistical Areas we had 2,230,000 of those. In eight of those only, just taking the big eight of those, there are 72 percent of the people employed in these areas.

You can take a look at the earnings and find that in terms of registered earnings, 84 percent of the earnings were in the sixteen S.M.S.A.s, 71 percent, in the big eight of the S.M.S.A.s. All the figures we get indicate, in spite of all the effort to decentralize industry and business, to get them in the less populated areas, that from 1960 to 1966 the introduction of new industries had only gone from 83 percent to 82 percent, in terms of outside of the Metropolitan Statistical Areas. Eighty-two percent of the new industries and businesses still were locating in the Standard Metropolitan Statistical Areas.

Information of this type is important to us as we plan and organize educational programs in the area of job training. I need manpower information on job training needs by area vocational districts. They tell me it's there someplace but I can't talk about training for manufacturing, training for service, training for business. I've got to know what occupations you are talking about - what broad categories of occupations. Let me illustrate this - it's sometimes pointed at you in vocational education - "You're training for too narrow an occupation." Look at your Dictionary of Occupational Titles. There are 40,000 jobs listed, so people say, "How in the world can you possibly train for anything?" But if you look at those, 800 relate to the machine trade. Eight hundred of those jobs relate to the basic training of machine trades and yet you'd say, "Machine trades, that's a narrow, individualized, special training program." I could be off a few on this but about 750 are related to auto mechanics.

If you look at it in this vein you can make an impact in terms of the job market, if you know the job market and know what you're doing. But I found no way to get the kind of data I need, that I'm looking for. I'd welcome it if you can come up with a way to get the data on how many people are employed by occupational area in a local area to be served, or a State area - by occupational area. They say it's down in Washington someplace on the Census data and every time I talk they say, "Why, it's there. All you've got to do is ask for it." I've asked. I don't get it. But I can't build programs unless I have some indication of what are the major occupations, because I could never cover them all. We don't have either student base or tax base. I have to go on a priority basis. So we have had to operate surveys and studies with the assistance of the Employment Service, with the assistance of anyone we can get hold of, to gather this kind of information as we talk about establishing an area center for vocational-technical education.

We need to know the employment in selected occupations because we can only go so far, so we can use a base of major areas as an initial selection. We need to know about turnover, we need to know about what new training industries are doing, we need to know about employment practices, because if they are running a labor gang industry - forget training. Just forget it. If the only way you can get into that industry is by going on the labor gang and living long enough to get to a job in it, forget training. It doesn't mean anything. So employment practices are important to us.

In the area of employer-employee interests it's not only what is available or what is needed - what will they buy? What will employers support? What will employee organizations, labor and others support? So it isn't only the facts, it's the feelings. Will they support a broad program of vocational and technical education? Will the people who graduate be able to get jobs after they graduate, or is there such a clamp on employment that they can't? There are two trade areas, for instance, in Ohio that I don't offer training in. They are needed. They are important.

They are good paying. But I don't offer training in them because it would be useless, the graduates couldn't get jobs. Not because they couldn't be trained but because the tight controls of that labor market in those two areas tell me "You're not going to get in", so we just don't offer training for them.

We're interested in what are the student interests. We don't plan programs on the basis of student interests but student interests tell us how much re-education you have to do. We brought studies of about 250,000 youth in Ohio. We can tell you what they'll say. We can tell you what they need for re-education. We can tell you of the emphasis on glamour occupations. We can tell you of a lack of emphasis on some of the major needs and occupations in our State, but we need to know this not from the standpoint of a decision factor in the matter of employing of youth, but in the matter of knowing what guidance, what counseling, what efforts must be made there.

The Employment Service Labor Market Area studies are helpful to us in this case where they make these Labor Market Area studies by occupational areas. These are very helpful to us as we then move into this matter of identifying occupational areas for instructional programming. You know one of the factors pointed at us as they started the Manpower Development and Training programs was "You old, obsolete, stupid people in vocational education don't know what the labor market is. We'll show you by requiring that you only offer training in those occupations in which we tell you you can offer training." Do you recall that? At the end of the first year I looked at the number of programs we had in manpower. I looked at our vocational programs we were offering through our public school systems and they almost matched perfectly in terms of the areas they told us to offer training in for the Employment Service and the areas in which we had put emphasis on training in terms of occupations in our present vocational programs. So if we are awfully stupid and obsolete there are some other people looking at the area with a fresh new look who have come up with the same type of information and ideas.

We have been working on the matter of area districts. We need information as to how you district a State. We are working at it to try on a piece-meal basis without a direct law that says you have to. Everything we do has to be a sales pitch. We've got to sell it. So far we've formed area centers to try to bring together enough student base, enough tax base because you can't do an adequate program of vocational-technical education today in a so-called and miscast comprehensive high school. I'll almost defy you to show me a comprehensive high school. There is not sufficient student base or tax base in most of our areas to offer in any high school the breadth of offers you need if you're going to be concerned with the different types of people with whom you must work.

We have tried to pattern Ohio in terms of what might be, but we haven't found a good way to reproduce this stuff yet. We have had to look at Ohio in terms of a logical way of putting Ohio together. We say if we had 46 area vocational districts and eight major cities - because I don't think I could force the eight major cities into anything - but 46 districts would provide us with a rather broad student base and a broad tax base to get to programs for youth and adults, a service center concept, not a half day program. Not a half day program because I believe you are cheating your people on this basis, but a full, integrated program in which you look at the needs of the '70's. Look at an educational system, if you please, and put together their needs for skills, their needs for math, and science, and technical knowledge, their needs for work camps, their needs for attitudes, their needs for ability to read. If they can't read, they can't get a job. This has to be a part of it, and there are a lot of other things that have to be a part of it - the rehabilitation and health.

We found in a center that we ran, which is similar to the Job Corps but we ran this under Manpower money before they had a Job Corps, we found out that after one year of living with it that something else was wrong besides education. We found that over half of these drop-outs we had in these job training centers were unhealthy, qualified for remedial help from the Rehabilitation. So we say that this has to be a part of the modern approach, the modern concern in education as well. Don't call me a socialist, I've got one simple point - you spent $275 million for vocational education last year. I think you spent $1,850,000,000 for O.E.O. but you spent $10 billion for welfare. Don't tell me you can't afford it. Don't tell me it isn't wise to make a man a job earner and a taxpayer instead of a welfare recipient.

I happen to believe that vocational education must be organized as a system of education to provide an integrated educational program built around a student's occupational goal. I would disagree with our previous speaker only on one point. I don't want to give them a year to sit and think, maybe a year to explore, maybe a year to work, but I happen to think that maybe they could do more thinking as they work, as they become a part of the productive society, than they might do if they had the time, as he said, to run around in their Mustangs and their other cars and learn to loaf and learn to live by their wits.

We are a team. We do need manpower information. We do have something to contribute to an understanding of the people and a relationship with business and industry that we have developed, too. I'm happy with and welcome the partnership between the people studying manpower needs, the people concerned with the labor market and those of us concerned with the area of education.

THE NEED FOR MANPOWER INFORMATION IN VOCATIONAL-TECHNICAL EDUCATION

By Emanuel Weinstein
Manpower Development Specialist
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I feel privileged to be here this morning because I consider this conference to be a giant step forward in the area of manpower assessment for educational planning. I can think of only one other conference dealing with the topic of manpower information for occupational education since the Vocational Education Act of 1963 was passed.[1] This may appear strange, since one of the perennial criticisms of vocational-technical education is that students are trained for occupations that are disappearing and not for the so-called "new and emerging" occupations.

Since the aim of vocational education is to prepare people for employability and since employable manpower is vital to our Nation's well-being, it would be a most serious condemnation if the instructional programs offered were not in tune with the manpower requirements of our society.

However, it must be noted that although there has been no great emphasis on this most crucial aspect of educational planning, it has not been entirely overlooked. The idea of considering manpower requirements as basic to educational planning goes back many years. For example, an excellent monograph was written in 1942 which described community occupational surveys in the 1930's and detailed the steps for conducting such a survey.[2] Even in recent years the conduct of occupational surveys preliminary to the establishment of programs has been considered standard procedure in many States.

Why, then, do we need this conference?

1. We must take into account the manpower policy of this country which has been emphasized in recent years. This policy advocates not only the preparation of a qualified labor force as necessary for the continued economic growth of this Nation, but it also stresses the development of the individual's capacities so that he may benefit from, participate in, and adjust to changes in the economy. In order to implement this policy, the people of this country have turned to the educational establishment as a major source of assistance because of its capability to develop the human resources necessary for the successful attainment of its manpower policy goals.

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[1] March, Georgianna, Editor. Planning Occupational Data Requirements for Education: Proceedings of a Conference, University of Wisconsin, Center for Studies in Vocational and Technical Education. 1966.

[2] Zapoleon, Marguertie Wykoff. Community Occupational Surveys. Vocational Division Bulletin No. 223. Federal Security Agency, U.S. Office of Education. Washington: U.S. Government Printing Office. 1942.

Coordinate with the implementation of the manpower policy is the sense of immediate urgency which exists today with regard to the effectuation of certain social changes caused by such things as rapidity and extent of technological change, population growth, shifts in occupational distribution of the labor force, changes in the content of occupations, increased involvement with education and leisure time, and an upsurge of concern for the individual.

2. There is a need for evolving common conceptual and practical approaches, as far as particular circumstances will allow. As we come closer to a better understanding of the connection between education and the utilization of our human resources, it becomes quite clear that planned relationships between manpower needs and educational programs are essential.

3. While the burden of policy making with regard to education rests in State and local school systems, the Federal office can contribute to national employment policy and manpower planning through the systematic collection of data which can be used in carrying out such policy, and through its mechanisms for exchange of experiences.

4. In spite of the use of community surveys and available job market data, more comprehensive and accurate information is needed than is available now on the characteristics of the labor force, the structure of employment, occupational mobility, factors affecting occupational choice, training facilities, and the supply of trained workers.

Before I continue, I should like to stress what must be quite obvious, and that is that the word "manpower" really means "human power." In considering the preparation of workers we should include women, the educationally deprived, the physically and mentally handicapped, and older workers. In the case of women, for example, there are approximately 29 million women working today, amounting to approximately one-third of the labor force. It is estimated that by 1980 there will be more than 36 million women at work, or about 37 percent of the labor force. In the case of the physically and mentally handicapped, a group which has been recognized as a very good source of manpower, Section 4(a) of the Act indicates that Federal funds may be used to prepare such persons for employment. Yet, although we know that handicapped persons do attend vocational-technical schools, we have no data regarding such attendance.

If we are to accord manpower information a prominent role in planning for vocational-technical education, then it behooves us to examine the background from which such a rationale emanates. The Vocational Education Act of 1963 reflects the dual intent of our manpower policy, i.e., the development of human resources should be related to the economic growth of the country and to the preparation of the individual for the requirements of society. The Act indicates that vocational education programs are intended for "persons of all ages in all communities" and that such offerings must be "realistic in the light of actual and anticipated opportunities for gainful employment and must be suited to their needs, interests, and abilities to benefit from such training."[3]

In addition, the Act provides that vocational and technical education may now include within its scope all occupations which do not require a baccalaureate degree. This means that we are concerned with approximately 90 percent of American occupations. The challenge facing vocational education planners becomes quite obvious.

At this point it would be well to recall certain other vocational education legislative requirements. First, each State wishing to participate in Federally financed programs is required to submit to the U. S. Office of Education a proposed plan of activities for the coming year. This plan must include an analysis of the current and projected manpower and employment needs and opportunities in the State. States also are required to provide an assessment of their capacity to offer meaningful occupational and vocational education and training, and to include plans for the future.

Secondly, each State submits an annual statistical and descriptive report containing financial, staff, enrollment, and other data.

These two reports represent a kind of built-in-planning and evaluation system in that the annual report can be used to indicate if, and how well, the projected program of activities was carried out.

Thirdly, in order to ensure that vocational education programs will mesh with manpower and skill needs, nationally and locally, it is now required that a close relationship be established between the U.S. Employment Service, U.S. Department of Labor, and the U.S. Office of Education--U.S. Department of Health, Education, and Welfare; and between State public employment services and State vocational education agencies. Agreements in State plans between these two agencies enable vocational education planners to have access to, or arrange for, obtaining data about manpower trends and occupational requirements.

In planning educational programs for manpower needs, there are three basic factors to be considered:

1. The occupational distribution and trends of the labor force.
2. The actual work performed and the performance requirements.
3. The education and training needed by the worker for successful performance.

We are concerned with the first item. The second item is to be dealt with at a conference at Colorado State University from July 29 to August 2 at the Institute on Occupational Analysis as a Basis for Curriculum Development. The last is contingent on the first two.

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[3] Vocational Education Act of 1963--P.L. 88-210, Part A, Section 1.

We hope that this tool will satisfy the fundamental need for information on education allied to information about jobs and labor market trends and thus aid us to respond more quickly to technological and other changes. In essence, we anticipate that the data developed with the use of this tool will provide a basis for policy development and for the subsequent adaptation of programs to the changing needs of our economy and society.

Because one of the functions of an educational system is to provide society with an efficient work force, and because the "lead time" needed to prepare qualified manpower tends to be long, manpower data must not only reflect current conditions but also must anticipate events so that educators and manpower specialists may respond positively and with reasonable speed to the changing needs of our times. Our mission must be to develop a pragmatic manpower information system that will be sensitive to the manpower demands of our society so that meaningful preparation or retraining for employment will be available to all people.

NATIONAL MANPOWER INFORMATION FOR VOCATIONAL-TECHNICAL EDUCATION

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The Bureau of Labor Statistics is a relatively new entrant into the field of concern for regional and local projections of manpower requirements. Historically, the Bureau has been concerned almost exclusively with manpower requirements for the Nation as a whole. In many ways, estimating national manpower requirements is simpler than estimating local requirements. The historical employment data for the Nation is more detailed than those available at the local level. The cost of surveying, collecting, and publishing employment data of the same specificity locally as available nationally has been, in most instances, viewed as prohibitive. Moreover, at the national level, projections can be made within the framework of a relatively closed system. Except for a handful of industries, national manpower analysts are not deeply concerned with the movement of capital, labor, and industry across political boundaries. The migration of workers between States, however, or the movement of capital, industries, and even plants between States or areas is an extremely important consideration in making regional or local manpower requirements projections.

Although the Bureau has concerned itself with national projections, this has not excluded the use and influence of its work locally. Frequently, I believe, the local impact of our projections has been greater than we had thought. The national manpower projections have been distributed to local areas mainly through the Occupational Outlook Handbook, 80,000 copies of which were sold and used locally during the last two years. As most of you know, the publication provides employment outlook and other information for guidance purposes on more than 700 occupations and about 30 major industries. In addition to the influence of this publication, we have also made national manpower projections data available to groups requesting such information in States and areas, including local employment security agencies, community and regional development groups, private research organizations, and colleges and universities. BLS has also performed a number of special manpower studies over the years that have also had wide local distribution. For instance, reports on the impact on manpower requirements of government research and development activity, financing of massive highway systems, and health manpower needs have been prepared and distributed by BLS. This local use of our projections for planning purposes, however, has been primarily a by-product of our main program. But now, with our Nation's deepening commitment to the creative development of human resources, we find ourselves becoming more deeply involved in the area of local manpower projections.

Our first venture into the field is in the form of a guidebook entitled, Tomorrow's Manpower Needs, and subtitled, National Manpower Projections and a Guide to Their Use as a Tool in Developing Regional Manpower Projections. Our four-volume publication, developed in consort with the Bureau of Employment Security, presents the most recent national manpower industry and occupational projections and provides techniques for using these projections to prepare consistent projections for States or local areas. The publication also provides descriptions of techniques for estimating occupational needs arising from the deaths and retirements of workers over the projection period, and appraising the potential supply of workers. One major contribution in the publication is a matrix showing the occupational makeup of about 160 industries in the economy. Also included are descriptions of historical employment trends and reasons why changes in industry and occupational employment have occurred and are expected to occur in the future. The Bureau of Employment Security is concurrently working on an operating manual which will, in a sense, put the recommended systems (or a modification of them) into effect throughout the country. Tomorrow's Manpower Needs has been completed and reviewed and will be published and distributed within 90 days. We feel that within the data limitations that exist, the techniques have great promise for providing the required volume of reliable local occupational projections on a timely basis and at a reasonable cost.

There were a number of restraints placed upon our endeavor to develop techniques for making local manpower projections. First, local data limitations and the level of local financial and staff resources available were a particularly burdensome restraint. The techniques had to be designed about a paucity of local employment data, but yet they had to provide a basis for making projections at least as detailed as those available for the Nation. Without much concrete knowledge of data requirements for local planning of education and training this latter requirement seemed a minimum goal. Moreover, bluntly put, the level of sophistication of many local analytical staffs--specifically in regard to projection methodologies--was not communicated to us as being great. Also, the time available for projection work by local staffs was known to be limited because of concurrent duties related to other programs. The absence of access to data processing facilities in some States and areas was another serious restriction on the development of our system for making local manpower projections.

In addition to the environmental restraints, we had some (what can be called) "philosophical" restraints upon our development of local projection techniques. First, we believe that State and area manpower requirements projections can be made more reliable if the analyses are made within the context of nationwide economic and technological developments. What this boils down to basically is that the techniques recommended make maximum use of national manpower projections (which reflect an assumed national economic framework in the target year), and that regional population projections made by the Bureau of the Census and regional labor force projections made by BLS are strongly recommended as independent variables in regression equations and regional employment controls.

Second, we believe that regional manpower analysts familiar with local markets, the movement of industry into an area, and other factors affecting local industry and occupational employment are best able to estimate manpower requirements at the local level. Third, we believe that the selection of an appropriate projection technique or mix of techniques--although analytical rather than of a survey type--should be made by local manpower analysts taking into account the financial resources available, the technical sophistication of their staff, the volume of projections required, the purpose of the projections as they affect the need for accuracy and detail, and the availability of computer assistance.

Generally, these last two "philosophical" restraints can be subsumed in the statement, "let the local people who are close to the problem and have ultimate responsibility make the important decisions."

In any discussion of projections techniques, the question of the accuracy or reliability of the results obtained from the use of such techniques is certainly a relevant question. Precision in occupational projections is a noble goal, but quite elusive, if only the errors existing in the basic data are considered. Unfortunately, housewives provide census enumerators with faulty information about their husband's occupation, errors in classifying job titles are made, keypunchers make errors, as do printers. Although the quality of employment data available to manpower analysts in the U.S. is perhaps better than in all other countries, there is a certain measure of error in all statistical data. Moreover, error or inaccuracy exists in all projection systems, regardless of sophistication. For example, all the factors influencing the employment of a particular occupation in a certain region could never be represented in an equation or system of equations, considering the current state of the art. Also, projections are conditioned upon a number of assumptions concerning the environment of the economy over the projection period--a cross between goals and likelihoods--which are never achieved or even sometimes approximated. Without going more deeply into this subject, it seems logical that the only true measure of the accuracy or precision of projections (I prefer to use the word reliability) is the pragmatic measure of whether they are accurate enough for the needs of the user--in this case, program planning, facilities construction, and curriculum development for education and training. Occupational training programs based upon projections that are 75 percent accurate are probably superior to those developed on the basis of tradition or current requirements.

I have brought up the subject of the reliability of projections because the major criticisms of an early draft of Tomorrow's Manpower Needs centered on the recommended techniques. These criticisms came almost solely from colleges and universities and were authored by analysts steeped heavily in quantitative approaches to economic analysis--model building, much like we use at the national level (along with intuitive techniques). It is questionable whether complex model-building techniques--however designed--could ever be used by local manpower analysts, or provide the volume and timeliness of projections required by local planners. However, on the basis of these criticisms, we have included in the final publication several somewhat more sophisticated industry projection techniques. However, we have tested the techniques recommended and feel--once again, from our limited knowledge of the information needs of local manpower planners--that our techniques are certainly reliable enough for their intended use. One of these tests has been written up and is included in Volume I of the publication.

Without delving deeply into the recommended projection techniques, let me briefly describe them. One industry projection technique--the simplest one--recommends computing a local industry's historical employment share of national industry employment and projecting the share into the future. By relating the projected share to our national employment projection in the target year, a local industry employment projection is obtained. All that is needed for this technique is that a local industry's employment move in a consistent and measurable relationship with its counterpart nationally.

We recommend this technique as a first approximation for both industries that sell in local markets and national markets. Although the technique has in the past been recommended for the latter type industries--most manufacturing and mining industries, for example,--to my knowledge, it has never been recommended for industries selling in local markets. Local market industries generally are influenced by the level of population and income in a region, among other local factors, rather than national trends in these variables, which influence industries that sell in national markets, such as furniture and basic steel. Our tests, however, indicated that using the technique for local market industries frequently gave good approximations and rarely gave poor results. There are a number of reasons for this. First, the area is a part of the Nation and area industry employment changes are reflected in the national industry employment levels. Second, the pattern of demand for the products of local industries is greatly affected by population and income in the region which, in turn, is influenced by basic social and economic trends which affect the whole Nation. Generally, if population and income are rising rapidly in the Nation, chances are that it is also rising rapidly in most sections of the country, providing income for people for purchasing many of the products and services of local market industries. Third, there is a great amount of homogeneity across the U.S. The tastes and preferences of the people of Lincoln, Nebraska are probably very similar to those of the people of Boston, Massachusetts. Limited by technology and social customs, the population of both these cities own televisions, automobiles, and houses, and therefore require the services of TV repair and automobile repair firms, and plumbing and painting contractors. They purchase local newspapers, telephone friends, listen to local radio and TV, eat doughnuts and drink soda pop, supporting local printing and publishing, advertising, communications, and baking and beverage industries. Local businesses in all areas of the country require the services of auditing, banking, printing, and management consulting firms. Finally, the technology and the structure of industries, among other factors, are similar throughout the country resulting in relatively similar price structures for the products of local market industries. Therefore, the similar tastes and preferences of the population tend to be satisfied in environments where the relative price structures are similar.

Multiple regression is the basis of the two other techniques recommended for making local industry employment projections. One of these techniques uses an example which attempts to isolate those characteristics within a region that are affecting employment in a local market industry; the second, uses national employment in the industry as a demand (independent) variable, adjusted for productivity, and time as an indicator of the competitive regional affects. Both techniques require the projection of the independent variable, although the second uses the national industry projection contained in Tomorrow's Manpower Needs.

The techniques for making regional occupational projections described in the Guidebook take into account the expected growth in local industry employment and the occupational makeup of these industries. Two techniques are presented whereby change factors computed from the expected national trends in the occupational structures of industries are applied to base year local industry occupational structures. These methods assume that technology and other factors affecting local industry occupational structures are similar to those affecting their counterparts nationally, so that the trends in the use of occupations by industry are the same locally as nationally. But they also "localize" the occupational projections by recognizing regional differences in industry occupational structures. Each of the occupational projection techniques requires a different level of sophistication on the part of local analytical staffs, has different data requirements, and provides a different degree of flexibility.

We have learned a lot from our first venture into the area of local manpower projection techniques. We hope to use this information to improve the methods and their presentation in the updating of the publication at a later date.

I hope you will excuse the emphasis today on our new publication. As you can see we are quite excited about it. I could have taken time to explain our national systems for collecting employment data but I thought that Tomorrow's Manpower Needs would be of more interest to you.

AVAILABILITY OF MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATION - NATIONAL SOURCES

By Vladimir Chavrid
Research Director
U.S. Employment Service

The two speakers who preceded me said that they were so far-sighted that they had thought ten or fifteen years ago how important this area of work was. I wouldn't have said this, but I, too, had thought many years ago of the kind of information that is needed for vocational education programs. As a matter of fact, the first survey, the so-called "Area Skill Survey" which was made in York, Pennsylvania in 1951-52 is still used in many States. That was the prototype that has been adapted by many States since then. Under the Manpower Development & Training Act we developed a certain procedure that has been picked up very well in many States, but especially in Connecticut in the so-called "Area Training Needs" that provides for training projections one year and two years ahead. This has been a very valuable tool.

We in Washington, I might say, other than publishing such things as the Dictionary of Occupational Titles, don't publish materials. Our job in Washington is to provide guidance to the State agencies for the kind of information that needs to be developed. Since there has been quite a bit of stress under the Vocational Act of 1963, immediately upon passage of that Act in February of 1964, Dr. Arnold, who was then head of Vocational Education, and I formed a joint committee in Washington, notified the State agencies, and indicated to them what their responsibilities were under the Act. We followed that with another agreement that was made between Dr. Howe and Assistant Secretary Harold Rutenberg which again was forwarded to the States.

The States have provided, by and large, a tremendous amount of information but not all that was required and not in all places, because no funds were allotted for this program. Not a single penny has been allotted for development of the information to fulfill the State Employment Service responsibility under the Act. Not only that, but many other programs came into being, the Concentrated Employment Program, the Economic Development Act, the Jobs Program. All of these programs became a part of the State Employment Service operation and, to a large extent, State vocational operations have not in any way added any additional funds for the development of this information.

Things for the future look somewhat brighter. Senator Javits introduced an amendment to the Manpower Development & Training Act in which he has arranged many different kinds of information needed for Vocational Education, as well as for others, and stipulated that not less than 2.5 percent of the money that is allotted under the Manpower Development & Training Act be directed towards the development of the aggregation of job market information in the nation, such information as projections, current job vacancies and the like. Whether or not this particular amendment will pass remains to be seen. We cannot wait, we must move ahead.

Briefly, I will describe to you what we are planning to do now. This is very much in line with what was said yesterday in the work groups as well as by the leaders. We are developing a handbook on occupational manpower projections which is for the States' use. This is sort of a supplement to what was described to you earlier. It is not an easy task; it is a very difficult one. Provision in this handbook will be made not only to develop the manpower projections in the future, because that in itself is not enough, provision will be made also on how to estimate deaths and retirements. In many occupations the needs do not arise from expansion, they come about from deaths and retirements. The numbers involved are far, far greater than those that result from growth.

You now have labor demand in terms of anticipated additional needs, plus demand that stems from deaths and retirements, but it may well be that in any one occupation, the number of people that are being trained by industry, by yourselves - vocational education people, or by some other source, may be more than is needed. The training program may be greater than the demand, so provision is being made to estimate the supply, to balance these two things - the demand and the supply - and then see where you go. These are not easy. To do an analysis of Hartford, Connecticut, in a proper way, is far, far more difficult than to do the analysis of the whole United States because nationally you don't have migration, you don't have specific growth of industries that are not of a national scope, you don't have plants leaving the area, you don't have plants coming in, but these kinds of problems exist in a given community at all times. Nonetheless, as hard as these problems are the need for such information is great and hopefully this handbook will come out and ease the burden of making such analyses.

Yesterday it was said in terms of this projection that such things needed are our labor force, population, occupational needs, lower groupings and detailed information. As I see it there are two kinds of information that are needed, one for propaganda purposes for educating groups, which is gross information by broad occupation which allows you to see what the trends are. This is mostly for those who are not concerned with the detail. But for the administration of the program there needs to be a great deal more detail. Unfortunately, the Manpower Needs of Tomorrow doesn't have that kind of detail. There needs to be a great deal of additional supplementation. Some of these occupations are very broad - one occupation that is of interest to you would have something like two million employed. It is extremely broad, so that the State Employment Security Agency would have to provide much more local information which is of interest to a particular locality and which may not be of concern nationally. This particular handbook hopefully will come out as the national some time in September. We have in this book suggestions on how to project population, labor force, unemployment, as well as growth in individual occupations, plus deaths and retirements, and labor supply.

Your projections and anyone's projections can be wrong. If anyone says that he has made a projection in a given year and it came out correct I am sure that the reason why it came out correct is because he did not remember to take certain things into account. There is no question that it was purely by accident. The only thing that you can project with some certainty is population by 14 years or over, because you know they were born. You can't even project total population correctly but you can project population of a certain age because you know the number of people who were born in a given year and that 14 years later they will be 14 years of age. That you can do. But not this other. A lot of projections came out correctly because of the Korean War, which was not considered at the time the projections were made. A lot of projections came out correctly because of the Vietnam War, which nobody anticipated. The occupation of projections will have some people who will keep track of it to make sure we have not gone off the deep end. This can be done through already existing information with the Employment Security System, the so-called unfilled job openings that provide a very good guide as to the difficulty with which certain occupations are really suffering from lack of supply.

Just to back up these projections, if projections were good and if our educational system were correct, both private and public, we would not have today somewhere in the neighborhood of 1.2 million job vacancies that exist. They would balance, but they don't balance. Out of this estimated 1.2 million total job vacancies, the Employment Service holds about one-third right now. Amazingly enough, by occupation they relate very closely to the estimated total job vacancies other than those that are held by the public employment services in the State. How do we know? Here's how we know, we have made jointly with BLS a number of job vacancies studies in 16 areas. Comparisons were made in individual areas and, except for certain construction occupations which the Employment Service does not penetrate into because of the trade unions, the relationship was very close. Now we have projections, we have these job vacancies so we can keep track to make sure how our projections come out. The information itself on unfilled job openings is very significant in terms of guiding, but it was mentioned that longer range projections are needed.

Having the manpower projections is not enough. Having current job vacancies, unfilled openings, is not enough. We need certain guidance information that has more relevance for individual counseling. The projections are good for planning but they do not tell a youngster what one does in a specific occupation, what are the promotion lines, whether he must join the union later. These kinds of information we now have in many States in the so-called Occupational Guide. We are going to bolster this program through a system on which we are now working that would make it easier for the State to develop such information. What I mean by that is that nationally we will describe the job, the growth, promotional opportunities and things like that. Locally the State agencies would develop certain economic information as to job prospects in that particular occupation and pinpoint differences that may exist in an individual area to which the national data may not apply. This kind of information will go, to the fullest extent possible, to those who need the help the most. Information would be of two kinds, one for counselors and the other as a give-away to the individuals.

These are three types of information, projection, current vacancies, Occupational Guide. The specific information in the form in which we hope it will be delivered by the State Employment Security Agency to the State Vocational Education people is also being developed, and full agreement has been reached at the Washington level between Bill's group and my staff. Here again we are moving in a way to meet the very important need that you have. With all of this information, the specific format, unless there is a dialogue between the State people both on the Vocational Education side and the Employment Service side, no good will come out of it. We don't all speak the same language. We have difficulty understanding you and I am sure you have difficulty in understanding us. The only way that this can be erased is through continuing discussions. I tell you that no State Employment Service should merely send statistical information to the Vocational Education people and say, "I have fulfilled my responsibility." It should be carried over. It should be explained. There could be many questions that come up. As a matter of fact, I think that the arrangement of information should be discussed between the two agencies in the State. It is very important. I think that the need for particular information, whether it is for the construction of a school or for changing your curriculum, should be discussed so that the information which you get would be arranged in such a manner as to be most meaningful to you.

At the national level, the people in the Office of Education are mostly concerned with the States as a unit - State projections. At the local level it is quite different. At the local level the need is for information on an area basis, on a school district basis. On the Standard Metropolitan Statistical Area it is pretty easy to do, but even that may not be enough. It may be necessary to include a tier of additional counties around the SMSA for the development of this kind of information to be the most meaningful. When it comes to the school district it is very difficult, because the school district has not been set up in any specific way. A comment was made yesterday by Dr. Shoemaker that perhaps some information should be developed that would assist the Vocational Education people to redistrict the school district in a better fashion than they are doing now. Many states are doing this. I was talking to people in Wisconsin and they have reviewed and revised the whole State.

Sometimes other very important factors must be taken into consideration, for example, in a very big State where the Vocational Education people come to the Employment Service, the area superintendent of schools wanted to know the labor demand in his district so that he might go to the head of the State Vocational Education and ask for some money. This particular school district that he was talking about was strictly residential. There wasn't one factory, just a couple of gasoline stations, a couple of little stores. There you have no demand. You must figure out another way. For him it was necessary to find out how many people were employed in an adjoining area, how many people from his district commute to that city and base his request for additional money not on the demand in the particular area that he serves but on the demand in the adjoining area. In Maine and New Hampshire demand is estimated on a Statewide basis but the people in individual districts should be given the opportunity to go to a vocational education school. They need not have the demand for labor all there within the district. To impose such a limitation in rural areas would result in no training in other than agricultural occupations. So this area would have to be looked at very carefully and somehow resolved. In one State, in the Outlook, jointly the Vocational Education Department and the Employment Service have broken the State into certain areas hoping to develop information for these particular areas to be useful for vocational education. I think these clusters you mentioned yesterday - arranging the Dictionary of Occupational Titles into clusters - would be of great help in terms of making both the Employment Service and the Vocational Education people talk the same language. They would be consolidated by the kind of language that would be most familiar to us.

There are some other things I would like to mention, perhaps more for the benefit of the State Employment Security people who are here, we are revising our whole labor market information program. We hope to have an annual labor market report covering major metropolitan areas. Many of you served on CAMPS committees, Model Cities programs, JOBS programs, so hopefully this report prepared annually by the State Employment Services would cover your needs. It would provide you with a broad base of the economy in the area and what are its needs. This kind of a report would be followed by what we call "Quarterly Area Reports" and, hopefully, this quarterly report would get wide distribution to the decision makers so that you would take the labor market conditions into account in any type of planning that you would do. You see, in running a manpower agency the things that you do are extremely important to us. There is nobody else in the community that is more important, because you deal with manpower. If you train people in the occupations for which there is a demand, you wouldn't have these 1.2 million job vacancies. It would be much easier for the Employment Service to place the people, or they would be better able to find the jobs themselves. This kind of a need for a good working relationship and for us to provide you with good information is extremely important. Unfortunately, as I mentioned to begin with, no funds have been made available for this goal, but somehow, in some way, we hope to cut corners here and do the best we can. Hopefully we'll see better data, and maybe some funds will be provided.

Yesterday a mention was made that perhaps you should write to Mr. Odell, my boss. This you could do. The only trouble is we've been working on this, trying to do the best we can for the last three or four years. If you wrote to somebody who is in a position to allot some money to this program, that would be very helpful, but you twist and twist and there's just so much blood. You can go direct, you can cut corners. Some State agencies have done pretty well. Some Vocational Education people, for example North Carolina, entered into an arrangement with the Employment Service whereby they have shared the cost in development of this information 50-50. This was good. Perhaps some other States could do likewise which would be a wonderful thing.

AVAILABILITY OF MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATION - NATIONAL SOURCES

Plans for the Industry, Occupation, and Class of Worker Items in the 1970 Census of Population

By Murray Weitzman
Assistant Chief
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The Nineteenth Decennial Census of Population and the companion Census of Housing will begin on April 1, 1970, and continue until in principle every person and housing unit in the United States have been enumerated. Answers to the Census questions will provide Congress, administrators, researchers in many fields, and the general American public with a wide-ranging picture of the social, educational, economic, and other personal attributes of the population and existing housing conditions in the Nation. Summaries of the collected information will be tabulated for many types and sizes of areas and published either in Census reports or will be available in the form of unpublished print-outs, microfilm, magnetic tapes, punch cards, etc.

Information on what kind of work people do to earn their livelihood will be among the subjects for which information will be collected again in 1970 as it has been in each Census since 1840. The census is the only source providing data that include all economically active persons, including such groups as self-employed, unpaid family workers, and private household workers. For States and local areas, tabulations by detailed occupation provide the only information we have on the occupational skills of the labor force. These data are used to formulate economic development programs, to provide data to government and private firms in locating facilities and new plants, as well as for the various manpower programs. The detailed listings of industry and occupation, tabulated by other demographic and economic characteristics such as education and income, are used in planning manpower training and utilization programs.

Among the tasks that must be done in preparation for a Decennial Population Census is to review the industry, occupation, and class of worker classifications used in the last Census in search of ways of making them more useful.

The industry item, which from 1950 to 1960 underwent a greater amount of change than the occupation item, will change relatively little from 1960 to 1970. No change is contemplated in the question wording.[1]

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[1] Actual question wording of the industry, occupation, and class of worker items as used in 1960 and planned for 1970 are included in the attached Informational Copy which shows the questions being used in the "dress rehearsal" program for the 1970 Census of Population and Housing.

It will not be necessary to make many changes in the Census industry classification to retain comparability with the Standard Industrial Classification since there has not been much change in the latter since 1960. Most of the changes anticipated in the Census industry classification will result from an examination of the large industry groups to determine if they can be split into smaller groups.

In coding individual responses for the industry item, Census uses a company name list. This list provides names of companies and their separate establishments, if any, by their respective industrial classification code for each Standard Metropolitan Statistical Area and county. It is planned to expand the company name list for 1970 so that companies on the list will be responsible for at least 50% of the employment in each industry.

Several important changes are planned for the occupation item. The first of these is the addition of two probing questions on the schedule. In 1960 there was one question, "What kind of work was he doing?" The new questions to be introduced in 1970 are: "What were his most important activities or duties?" and "What was his job title?" These questions have been added to elicit a more detailed description of the person's job, so we can classify it more accurately. Thus, we hope that a person who reports "clerk" in the first part may enter "files correspondence" in the second.

Another change planned for occupation is to expand the number of categories separately identified on the record tape. The detailed occupation list shown in the 1960 Census publications identified about 300 occupation categories. This is also the detail available on the data tapes. The detailed list of occupations shown in most of the 1970 reports will be about the same magnitude as in 1960. However, the record tape will have more categories (it is too early to predict the number) that can be used in special tabulations and special reports to show more detail.

The class of worker classification has been expanded to include several new categories. Some people who have incorporated their businesses, but are the major stockholders, consider themselves self-employed. By definition, however they are employees of a company. We have, therefore, added an "Own business incorporated" category. This will normally be tabulated with the employee of a private company category, but in some tables may be shown separately. In addition, we have split the government category into three parts—to show the three levels of government—Federal, State, and local.

One more change is being anticipated in processing all three items. In the 1960 Census no procedure was employed to distribute not reported cases (including a few not codable cases) for the occupation and industry items and they were shown as being not reported in the tabulations. For the class of worker item in 1960, not reported cases were arbitrarily assigned to the employee of a private company, business, etc. category because about 70 percent of the employees are classified in that category. In the 1970 Census, it is planned to assign occupation, industry, and class of worker codes for not reported cases by substituting the codes assigned for other persons with similar characteristics. This "hot deck" procedure will enable us to distribute not reported cases to major occupation and industry groups in the Census classification system. These assignments or allocations will be identified in the detailed published lists. There is no provision being made to identify in the regular published tabulations the assignment and inclusion of not reported cases for the class of worker category. However, in separate evaluation tables distributions will be shown for actually reported data.

Of particular interest to this group is the plan to include a new question in the 1970 Census on the completion of a vocational training program (question 27). It is hoped that data obtained from this question will assist the Federal, State, and local Government agencies in locating new vocational training facilities and assessing the potential market for various training programs. A comparison of the income and work experience of persons with and without vocational training, for specific occupations, will provide a rough measure of the financial return from an investment in vocational training.

AVAILABILITY OF MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATION
STATE AND LOCAL SOURCES

By Alfred Horowitz
Research and Information Director
Connecticut Labor Department

I'd like to discuss with you at the outset some of the problems as I see them sitting back in the last row at this morning's session. I found this morning's session extremely informative, but I sense that some kinds of differences kept cropping up, and I feel that those of us in education were speaking past those of us in labor. Those of us in labor likewise were speaking to some other point than that which the people in education would like us to speak to.

Questions such as What about the adequacy of the projections? Precision of the data? What have you done? Nobody asked "What have you done lately?" but I think this was implied. From where I sit some of the producers of the statistics feel that they are producing a tremendous volume of data, and I feel that some of the people in education, in vocational education, specifically, feel that they don't have adequate information on which to base reasonable decisions. I think they're quite right.

I think that what we need to do first off is take a very close look at the nature of the problem. I don't think that we can pursue the business of specifics, the business of how accurate, the business of how precise your estimates are, and produce much light until we take a look at what we have and see about the ways in which we can use this kind of information.

Perhaps it might be instructive if we ticked off here some very general ideas on the nature of the materials we are using, both national and local, to see if this can't give us some kind of an insight into what we can reasonably expect to come up with. I don't think that anything is going to be tailor-made for the purpose of telling you what kind of a curriculum you will need. I think, for example, the question on emerging occupations indicates this. We would be very happy to have information on emerging occupations but, as Mr. Chavrid and Mr. Heinz point out, this is tangential to the problem.

What is the nature of the materials? I think all of you know that our manpower system is a flexible system. Our policy tends toward free access to college, free access to education at various levels. I think the fact that any high school graduate can go to college is an important consideration. Whether they should is a policy decision which we are not prepared to make here. Second, we do foster geographic and occupational mobility, this is part of our culture. I think a third point is that any diploma, or any certificate, even a college degree, doesn't always stand for the same thing, and more and more we're seeing that it cannot be used as a measure of qualification. Again, very generally, what does our supply depend on? Here we're interested in contrasting supply and demand data. If you start out with the supply, and I think this number obviously depends on the number who have received the appropriate training, this supply is influenced by our expectations and by our projections. I think this morning's speakers tried to point this up. In other words, when you ask the question How accurate is your projection? you are forgetting that the very projection influences the supply. As one of this morning's speakers said, "If they come out with the right answer I know they did something wrong."

The supply depends also on the number who can be drawn in from related fields. An important consideration here is how you define the fields. What are the boundaries of the field? There's a lot of give and take and a lot of flow here. Somebody pointed out that one of the reasons it's easier to make these estimates on a national basis is because of the migration factor. You don't have this problem in the same intensity nationally as you do on a state or local level. The change in the job structure also influences the supply. It influences the supply in a rather unique way in that it doesn't change the actual supply but does change the count in that particular field. So much for the supply.

Very briefly, what does the demand depend on? Obviously it depends on the number of positions needed. It depends on the way in which the work field is organized. You can see this most clearly in the field of medical services where the need has increased faster than the number of positions, but the field is becoming organized in terms of specialists, therapists of one sort or another. Just recently Herb Righthand called to ask if we could get together and talk about how you define this whole area of health services, and we are in the process of doing this now.

Sometimes the supply helps to determine the demand. I think this is pretty clear. Much depends upon new developments and major political or social decisions.

Now as to how you get the data you need, there are two sources. The first of these is information you obtain from your local labor sources such as unemployment insurance studies, continuing wage and benefit history data, etc. The second source is reworked national data such as the Census, or Tomorrow's Manpower Needs, adapted to the local level. Developing local labor information is a growing field, not only in Connecticut but back in most of your own states as well. Industry has been providing us with materials since before World War II. We did labor market analysis by industry, we did labor market analysis by occupation and we did labor market analysis by area. It was the area analysis that got our attention because quick gross figures were needed during World War II. We wanted to know something about demand-supply relationships, and the pressures of the War and the War Production Board made it essential that we evaluate each area in terms of labor demand and supply. So it was an area kind of approach at first, and then, for a brief period, we went into occupational analyses. The occupational analyses, some of you may recall, at that time tried to point up some of the kinds of things that we want so much today. What are the age requirements in the occupation? What are the replacement needs in the occupation? What is the expansion demand picture? What are the lines of promotion in this specific occupation? etc. I can recall studying occupations such as oil burner service repair man and aircraft mechanic, and a whole host of others. However, this occupied us only for a brief period and then passed.

We began to get into industry analyses and this became a little bit easier to do, and a little bit less costly. Since that time we have devoted a sizeable amount of energy to what we call local area skill surveys which provide projections of manpower need by occupation for two years, or three, four, five years--generally no more than 5 years. I think it should be pointed out here that if you do have a projection for two years, say it goes from '66 to '68, it doesn't mean that you need to throw the material out. It still can be reworked. It still can be used. It's generally broken out into replacement needs and the same ratios probably hold. You probably can use this and not expect the State agency to redo the study because it's 1968 now and the study was based on '66 to '68. Possibly the department could rework this for you, could help you out and make it more useful for you, by a very small input of work and without redoing the whole employer survey. This is based, as was pointed out this morning, on an employer questionnaire.

The area skill surveys take different forms. Some are skills for the future which include a sizeable amount of labor market information. The type of information depends on how these are developed, whether in connection with a local chamber of commerce, a manufacturers' association, or other area group. We have recently, in Connecticut, completed a retailing survey. The local Chamber of Commerce in Hartford understood the importance of Hartford as a major retailing center and asked if we could provide this kind of information and we did. Thus, this type of survey can be adapted to reflect specific needs.

We produce such items as Our Manpower Future and I'm sure all of you are familiar with Labor Market Letters whether they are on the State or local level. In addition to this, for our Vocational Education Department we have done special surveys of training needs in specific industries. You might be interested in the fact that worker traits are considered here in some measure, not in great detail. We do ask the employer what attributes he is looking for when we survey. These are specific pinpointed surveys. I have one here which is a Special Survey of Training Needs for the Conn. Education Department, Bureau of Vocational Education for aircraft mechanics. We got a sizeable amount of information broken out by the kinds of mechanics, what ratings they had, what the need was and when they were going to be needed. This is one kind and one specific type. We do a sizeable number. When I say a sizeable number, we do very few according to Herb. I'm sure Herb would say that he could use more. At any rate so much for the second type of special surveys.

The third type of information I'd like to mention is what we call "Annual Occupational Needs." What we did was produce a table - our State is divided into 17 Labor Market Areas - perhaps you'll forgive my just saying parenthetically here that, unlike Dr. Shoemaker, we are concerned with our entire State. I'm sure that Dr. Shoemaker didn't mean that he wasn't concerned with the other but I think that he left the impression that his primary emphasis was on the 16 SMSA's in Ohio. We have 9 SMSA's in Connecticut but the only time you'll hear me mention the 9 SMSA's is if I am talking with people who have a specific interest in SMSA data. Really, we're concerned with all 17 Labor Market Areas in Connecticut. We're concerned with the Labor Market Area in which this great university is located - Willimantic. Willimantic is not an SMSA but there's a tremendous community here and they deserve the same effort as other areas.

For this specific kind of material we have the annual occupational needs of selected occupations. We selected about 11 occupations in the clerical trades, ranging from clerk to typist all the way on down to cashier, stock clerk and shipping and receiving clerk. We've got about 13 in the services ranging from cook through TV repairmen, nurse aide, truck and tractor drivers. We have something like 12 in the trades, ranging from automobile mechanics to airplane mechanic, to brick mason, tailor, painter, plumber, etc., and 15 manufacturing occupations ranging from machinist through sheet metal worker, to millwright, drill press operators, assemblers, welders, etc. We've got information for each. These are annual needs as we see them, developed from a variety of sources and covering all 17 Labor Market Areas in the State. These can be summed up for the State and we come up with some notion of what overall needs are.

There is another item which takes a sizeable amount of time and which I heard mentioned this morning. These are the requests from various school administrators, from superintendents of local schools who are applying to the Education Department, the Vocational Education Division, for equipment under the Vocational Education Act of 1963. The questions are: Do you have a program? Do you want to train in this area? Are there jobs, or will there be jobs when your training is complete, so that you will not be training people for nice jobs in which to be unemployed?

The requests are extremely varied in nature. One end of the spectrum would deal with job opportunities for disadvantaged people who are in school, disadvantaged by way of intellect, people who, they tell us, have I.Q.'s of less than 90. The schools are trying to upgrade these people and they want to know how many jobs there are in such categories as power lawn mower service helper - not power lawn mower service man - but power lawn mower service helper. We're asked questions ranging from that to one we had from one of our more sophisticated communities where the average family income is somewhere in the neighborhood of $18,000 - 20,000. This is a well-to-do community and the superintendent in the local high school wanted to know how many jobs were available for TV announcers. This poses a kind of a problem because he said "There are lots of jobs as TV announcers in New York and we're very close to New York. I would like you people in the Labor Department to tell us how many jobs there are going to be for TV announcers in the next ten years." We made an effort in this direction. We assembled some data which we checked with local broadcasting companies to get some kind of an idea about the problem. We did a sizeable amount of work to come up with something for this principal. We couldn't tell them how many TV announcers and related jobs were going to be needed in the next 10 year period, but we got him some information on which he could base some kind of a request. I don't know if the request ever went in, but this is the kind of thing that we are getting from our local school administrators.

We're getting questions from community colleges. We've had a whole flood of questions from community colleges. Community colleges want to know something about curriculum, they want to know something about the community in which they are a community college. They have learned very quickly the sources of the information and what is available and what isn't available and how you can use some of the information. I think that a conference of this kind helps to pinpoint the adequacy of the data, helps to tell you something about its reliability, helps to tell you about the kinds of sources that you can look for to get this information. So much for the specific requests.

A fifth kind of information is that which can be obtained from our quarterly ES-240 program. We prepared a study for the Hartford Area, which was the only area for which we had data available. The ES-240 is a program report on job openings in the local area which are hard to fill. It contains information which enables you, by using this kind of report and by treating this information, to make maximum use of job opening data. Job openings provide a large amount of information in and of themselves, but they have limitations. I think you need to treat them in order to use them as an index of jobs of the future. If you want to know something about present shortages and you look at those jobs that have remained open for a long period of time, I think that you can safely say that these are shortage occupations. I don't think that you can say that they are shortage occupations if they simply appear on a job list in the Employment Service. I think that you need to quantify this information, also. This is what we did for the Hartford area, which incidentally is the largest area in our State. We published this in our Monthly Bulletin for March, 1968, and we've had a tremendous demand for it from high school counselors and others in vocational education.

A sixth type of information is the matrix which we are working on now, Tomorrow's Manpower Needs. Bill Chavrid talked to you this morning on developing a manual for translating the national matrix into a local base. We're already progressing with this in Connecticut. We're doing this for the State as a whole but, as my colleague Roger Skelly remarked this morning, "We're doing this on a statewide basis, but in less than a year we'll be pressed for data on each of the 17 Labor Market Areas."

When we worked up our Hartford report on job shortages we received requests from all over the state, even before Hartford was formally published. I don't know how they found out about it but they wanted us to do the same for them as we had done for Hartford. Unfortunately, it wasn't possible, the data weren't available. At any rate, we're progressing with this matrix and hopefully we'll have it sometime between September and November.

One brief word in summary, and then I'm ready to sit down and listen to your questions and to the other speakers. I think that you should know that sometimes the old adage, for want of a nail the horse or somebody else got lost, and the whole army fell by the wayside, can also be applied to government programs. For want of $200 sometimes a program grinds to a halt and we can't move. We met this with our matrix when dealing with some of the early problems involved in trying to adapt this for use at the State level. Somebody had written a program to test the data for linearity. They were willing to give us the program. We could also get the needed employment information keypunched in our own data processing department. This was no problem. However, the program could not be run on our equipment, since the 360 model which we have lacks square root capability and does not have floating point arithmetic. Machine time elsewhere would cost $200. It took about $2,000 worth of our time scrounging around to try to find someplace to run the program, a good 3 or 3 and one-half weeks, simply because we did not have $200 to pay somebody to run the program. So for want of $200 you can tie the thing up for months and months and months. We've gotten through this. We think we're going to use a half dozen people, equip each of them with an abacus, and get around this problem.

PROSPECTIVE MANPOWER REQUIREMENTS

Studies by the
University of Connecticut
Labor Education Center
by
Professor David Pinsky

The Labor Education Center at the University of Connecticut has undertaken a number of studies in the manpower field designed for vocational educational planning and curriculum. The two largest in scope and most significant for vocational education were on Health Manpower Occupations and Printing Trades Occupations. A third dealt with manpower for the Connecticut Valley Tobacco Industry. Currently we are engaged in a study of New Metal Working Techniques and their effect on Connecticut manpower. I will describe the Health Manpower Occupations Study in detail as illustrative of others we have done and those which could be done in the development and use of such data.

As you know, there is and was a shortage of persons in the health field. The Division of Vocational Education was interested in establishing courses below the professional level to meet these shortages. A health education advisory council, consisting of health, hospital, convalescent home and education administrators was established. The council found it difficult to delineate the precise type and nature of courses which should be established with basic information.

The Connecticut Department of Education, therefore, contracted with the Labor Education Center to make a study of needs in the Health Manpower Field. It was agreed that this would cover only non-professional occupations for two reasons: first, the vocational education division, which sponsored the study, does not provide any professional courses; and secondly, shortages among physicians, dentists and other professionals are a very technical and controversial subject which we didn't want to get into.

This raised the question as to whether nurses should be included. They, of course, consider themselves to be professionals, although the vast majority are graduates of three-year nursing programs. However, no meaningful study in this area could be made without them and they were included. We were careful not to refer to nurses as either professional or non-professional, hoping to avoid controversy.

We undertook the contract with the understanding that if any group opposed it we would be free to drop the study. A project of this nature must have the whole-hearted support of participating groups. To obtain their endorsement we met with persons representing hospitals, convalescent homes, public health, nurses, physicians, and dentists. While we did not study the latter two groups as such, we were interested in the persons they employed. It was necessary to obtain their cooperation to get information on dental hygienists, nurses, medical secretaries, dental aides, receptionists,etc.

The overwhelming support and cooperation which we received from these groups quite surprised me. They were most anxious to see and help in this study. The reason became apparent after the first few meetings. The administrators were faced with a severe shortage of trained hospital personnel and any study which might lead to more courses and better training was welcome by them.

After a first round of meetings with these groups, a second round with selected subcommittees was held for the purpose of determining which occupations should be included in the study. As you know, there are some 400 or 500 occupations which might be included in the health field. To include all of these would make any meaningful study impossible. Working with these subcommittees, we selected 49 occupations which met the criteria that:

1. There is an apparent shortage.
2. The occupation is important in the health field.
3. Training below the college level is required for the occupation.

The occupations fell generally into the categories of nursing, selected aides, technicians, data processing, and dietetics. A complete list and their definitions is included in the appendix of the report.

Working also with these groups, an instrument to collect the desired data was devised. This was divided into two parts. Part I was designed to collect Estimated Demand. Part II was designed to obtain information on minimum educational requirements.

The first column of both forms contained the occupations for which data was to be collected. Separate forms were devised for general hospitals, special hospitals, convalescent homes, physicians, dentists etc., each including only those occupations significant to the particular group. The remaining columns for Part I were headed:

II Current Employment
    a. Full Time
    b. Part Time

V Current Job Vacancies

VI Number of New Jobs (Expansion) 1971, 1976

VII Expected Withdrawals from Health Field (marriage, family, retirement, other business or industry)

VIII Comments

Data concerning Educational Requirements which, after the first column listing occupations, contained the following columns:

- II Formal Education - High School, High School plus one, Junior College, Technical Institute, Diploma School, College.
- III Course Content - General (biology, English, math, physics)
- IV Course Content - Specialized (bedside care, body mechanics, geriatrics, radiology)
- V Comments

To collect the data, personal visits were made to administrators of all general and special hospitals in Connecticut and to all convalescent homes with 100 or more beds. The administrators were informed of the nature of the study and the data desired. They, in turn, discussed with us their general expansion plans, manpower problems, and other problems involved in running a hospital. The forms were left at the institutions with a request that they be returned in about two weeks. All but two of the institutions visited returned the forms and we were able to obtain supplemental data on these two.

For doctors and dentists, a form containing only those occupations used in office practice was devised. These were mailed to a selected sample of 1,000 of the 4,900 physicians and to 500 of the 1,990 dentists in Connecticut. A letter accompanying the form included endorsement of the study by their respective state bodies. We had been warned that such professional persons were notoriously lax in replying to forms of this nature and advised that we could expect quite a low return. We were, therefore, pleasantly surprised to receive returns from 70% of the physicians and 60% of the dentists solicited.

To obtain data from public health agencies and employees' health clinics, the larger units were visited in person and the smaller ones contacted by telephone.

The survey was started in November 1966 and the bulk of the data collected by May 1967. Originally, it was contemplated that the data would be processed by electronic equipment. However, the complexity of the data and the need to break it out by seventeen labor market areas made it necessary that preliminary processing be done by hand tabulation. The preliminary work having been done it was found that it would be easier to complete it by programming for data processing. The method having been established, a program could readily be written up for future studies of this nature.

The results show that Connecticut will have a need for 59,219 additional trained persons in health services by 1976. This number includes nurses but does not include doctors, dentists, or others requiring a college degree. By occupation, the largest needs are for registered nurses with a demand by 1976 of 20,940. In the technician field the largest needs will be for medical laboratory technician, 1,234; x-ray technician, 653; and operating room technician, 404.

For those interested, we do have a few copies of the report which shows the entire needs which we found and the method used.

The need of 59,214 additional workers is comprised of 3,734 current vacancies, 16,688 expansion needs and 38,792 replacements. Obtaining data on replacements proved to be most difficult. When we first asked hospital and other administrators to estimate their 5 and 10 year replacement needs, they threw up their hands and said it was virtually impossible to do so and refused to try. We quickly shifted our method and then asked them if they would go through their records and find out the number of persons by occupation who left because of death, retirement, or other withdrawal from the labor market, excluding turnover leaves where the employee left for a similar occupation in another institution. Good results were obtained from this and annual withdrawal rates computed. These withdrawal rates were applied on a rolling basis to employment each year and the 5 and 10 year replacement needs computed.

It is interesting to note that employed in the occupations studied were 38,867 persons and the ten-year replacement needs almost the same, 38,792.

For educational requirements, the hospital and convalescent home administrators generally prefer three-year diploma school graduates for staff nurses but college graduates for nurse supervisors and nurse instructors. For most of the other occupations, high school or technical school graduates were preferred.

In course content, English and mathematics were the most frequently preferred general courses listed. Geriatrics, bedside care, and body mechanics were the most frequently listed special courses.

We don't like to conduct research in a vacuum and are interested in its application. As stated earlier, the purpose was to establish more training courses for health occupations.

At the start of our program, the technical schools had courses available to 450 persons for licensed practical nurse. Early in the study it was apparent that there was a large need for this occupation. The courses were increased to 657 persons in 1966-67 and to 756 for 1967-68 and a further expansion is contemplated for next year.

As a result of the study the Department of Education has instituted nurses aide programs in several high schools. Enrollments in 1966-67 were 125 and in 1967-68, 260.

The shortage of dental assistants has led to several community colleges in the state planning programs in this for next fall, although none are firm at this time. Some of the community colleges are also planning two-year associate degree nursing programs.

The Connecticut Hospital Association obtained a $2,500,000 training grant from H.E.W. based on the demonstrable needs as shown in the report. This training embodies increased training in hospitals for technicians, one-year refresher courses for nurses reentering the field, and increased regular hospital nurse training programs.

Recruitment efforts have been aided by the study. Initially, 2,000 copies of the study were printed and widely distributed. Guidance counselors among others were sent copies. A slide and tape presentation of the study was prepared by a professor in our School of Education and this has been shown in numerous schoolrooms and before various groups concerned with health manpower. I have been asked to address numerous high school assemblies and career day programs on job opportunities in the health field.

At the present time jobs in health are the fastest growing of any occupation. Other fast growing occupations are also in fields involved in working with people such as social work, education, police and fire protection, and welfare. Shortages of personnel are apparent in all these areas. These occupations will have an even faster growth particularly after the end of hostilities in Vietnam. We feel that in order to plan effectively to meet the manpower requirements in these new and growing fields, manpower surveys similar to our health study just described are essential.

STATE AND LOCAL SOURCES OF MANPOWER DATA

By Dr. G. W. Neubauer
Director of Program Services
Florida Department of Education

Vocational education is premised upon the assumption that it prepares people for employment. If it doesn't, it is a misnomer and is flying under false colors. One key question is -- employment when? As soon as the student completes the instructional program, if this was his purpose in taking the course, or ultimately? Another key question is -- employment in the vocation for which he is prepared, a closely related one, or an occupation for which his preparation has only incidental significance?

The extent to which discriminating answers can be given to these questions depends upon a diversity of factors, many of which reside within the trainee. But one outside factor of utmost significance is the structure of the labor market. Often a student is not particularly aware of the supply and demand for labor even though this knowledge should be a significant consideration in career planning.

Where and how is this knowledge to be obtained? Much valuable information is available from federal agencies and private research organizations for building a general perspective on employment prerequisites and requirements, wages, hours of employment, employee benefits, desirable worker qualities, and other factors influencing job seeking and getting in numerous occupational fields. How does the trainee, as a unique entity, in a specific location, at a particular moment in time, use this information to best advantage in making vocational choices which are best for him? How, in short, does he get from the general picture to himself in Community "X", population: 45,000.

An intervening step may well be the State Employment Service and its network of field offices which are sensitive to local labor market conditions. Granted, the field offices of the State Employment Service are in a position to provide extremely valuable labor market information to local vocational education program planners and students. But, because of the specific responsibilities which State Employment Services were established to discharge, the information, as gathered and consolidated, is not always in a form which is most helpful to the local vocational educator or to the individual trainee. In Florida, state and local employment service personnel have been extremely cooperative in working with the Occupational Information Consultant of the State Department's vocational division. However, it has only been at the cost of many extra hours that the specific information needed by state and local vocational program planners has been gathered and translated into a form which is most useful. And then, because of limitations of time, funds, and personnel, it was possible for the employment service to conduct a state-wide labor market survey only on a one-time basis with the result that at least some of the information was obsolete before the process of interpretation and projection was complete.

It is the feeling of state and local vocational program planners in Florida that assessment of local labor markets must be a continuing process, particularly in metropolitan areas. There is no other way in which to establish local employment trends, and modify instructional programs to meet changing employment requirements.

Along this line I noted recently in a study entitled "The Role of the Secondary School in the Preparation of Youth for Employment," conducted by the Institute for Human Research at Penn State, that there was little relationship between proportional enrollments in the respective vocational programs and the distribution of occupations in the communities studied. Presumably, what was being said was that vocational programs were being offered, and high school youth were enrolling in them, with little regard for local employment opportunities.

I'm not so sure of the over-riding importance of this factor as a determinant for vocational offerings because of student aspirations and population mobility. But it is unquestionably a very important consideration in "selling" vocational education to a community, and getting school boards to provide adequate financial support. Favorable propaganda, if you will. If local youth are prepared in local schools for local employment, and perform satisfactorily when placed, local vocational educators have a powerful argument for convincing local boards of the worthiness of their efforts.

In any case, Florida State Department personnel have found the same thing as the Pennsylvania researchers in conducting local vocational education studies. Vocational division survey teams have found a woeful lack of current labor market information of practical use in planning for program development. If possible, this is an even more pressing concern for us at the present time than it usually is because of area vocational-technical center developments. I imagine the same thing is true of a number of the states represented at this conference.

Permit me, by way of illustration, to dwell at some length upon studies required by the Florida State Board for Vocational Education to validate the need for establishing an area vocational-technical center in a given service area consisting of one county or of two or more contiguous counties. Precisely the same requirements apply in the designation of a vocational-technical department of a junior college as an area department to serve a designated group of counties.

Since the purpose of an area vocational center or junior college vocational department is to prepare people for employment, an important factor in the brief accompanying the request to the State Board for area center designation is an analysis of the labor market structure in the projected service area, and of current and projected employment opportunities. Very little specific information of help in program planning was available. In trying to help the counties wherever possible, it was necessary to turn to employment service information. Readily at hand were the number and percent of the labor force in each county employed in "Manufacturing", "Construction", "Trade", "Finance, Insurance and Real Estate" and the other major categories of the Standard Industrial Classification, but there was often very little definitive information available for use in planning for program expansion or for developing new programs. I am referring to information on the number of typists and secretaries employed and needed, the number of vacancies for engine lathe operators or aircraft mechanics, and whether the latter were needed for jets or propellor-driven aircraft. Actually, program determination teams were often more interested in employment trends than in raw numbers, but they needed numbers to help in identifying trends.

Of course, this dearth did not apply to all counties. Some, such as those in which Miami, Tampa, St. Petersburg, Ft. Lauderdale-Hollywood, and the Cape Kennedy complex are located had relatively extensive data upon which to base program decisions. This was to be expected because programs and staffs were larger and more adequate facilities such as electronic data processing equipment were available for consolidating and summarizing information.

The difficulties were sufficiently widespread to make it necessary to rely very heavily upon two-year projections made in the "one-shot" survey by the employment service to establish uniformity and commonality of data. In addition, the Occupational Information Consultant for the vocational division made innumerable projections based upon the 1960 census and occupational trends identified by the Department of Labor. These were used in consultation with employment service personnel in an attempt to make longer range projections of employment needs in the service area of each area center. The service areas, incidentally, embrace 57 of the state's 67 counties and contain approximately 97 percent of the population.

Even then, however, we were not out of difficulty. Through no fault of the State Employment Service, occupations in two major vocational areas, namely, vocational agriculture and home economics, were not clearly identified. Of course, certain gainful employment occupations in home economics such as "domestic" and "food service worker" were readily identifiable. The same was true of occupations directly related to farming and production agriculture, but demands in agriculturally-related occupations such as "farm equipment mechanic" and "farm supplies salesman" were not so easy to pin down, nor was information readily available on the need for "child day-care workers" or "alterationists".

In the end, it was necessary to secure employment needs information for farm-related occupations from county agents and representatives of agricultural organizations. In addition, surveys to determine agriculturally-related employment opportunities were conducted in representative Florida counties by local vocational agriculture supervisors in cooperation with the Vocational Research Coordinating Unit, and the results were generalized for program planning purposes.

Somewhat the same procedure was followed in determining gainful employment opportunities in occupations related to home economics. Research Coordinating Unit personnel, in cooperation with home economics teacher educators at The Florida State University, designed a three-year research and development project to identify employment opportunities in home economics occupations, prepare appropriate curricula, and provide inservice staff training for teachers. The project is presently in its last phase. In phase one, however, survey findings relating to employment needs were obtained on a state-wide sampling basis, and were used in writing educational specifications and planning for facilities in the initial stage of area school construction.

In determining employment status and needs in technical and health-related occupations, we were in a somewhat better position. In fact, we had considerably more detailed information than did the State Employment Service. Information on employment opportunities in technical occupations had been gathered biennially from employers, and an initial state-wide survey of employment and projected employment demand in health-related occupations was also in the last stages of completion.

For determining needs in the technical occupations, a list of 3100 representative employers has been established in consultation with the State Advisory Committee for Technical Education. This group is canvassed periodically to determine the number and kind of technicians employed, and the projected need for technical personnel for the ensuing two-year period. Usually, about 75 percent respond by the cutoff date. A program has been written to process the information and, except for interpretation of the findings, it is essentially a routine procedure; but it provides invaluable evidence in planning for new programs and curtailing unwarranted expansion.

The same procedure was followed in identifying current employment and need in the health-related occupations, and in projecting job opportunities for the next biennium. In this instance, however, the 1100 responses (3500 in new survey) came from physician's offices, hospitals, clinics, nursing homes, medical laboratories, and similar kinds of health facilities. All were identified in cooperation with the State Advisory Committee for Health Occupations, and with the full knowledge of the various professional organizations associated with the respective health fields. The program for processing this information is simply an adaptation of the one used for the technical occupations, and provides similar data for program and facilities planning purposes.

So much, then, for the problems encountered and the resources used in program and facilities planning for phase one of area school construction.

Presently, however, the second phase of construction for most area centers and junior college departments is in progress, although a few are just beginning to "get off the ground." In certain respects somewhat the same problems are being encountered that were confronted earlier, but to a more limited degree. In the initial planning stages, local vocational educators were requested to project a total plan of development for an area center, recognizing that it would be necessary to construct the facilities in operational phases.

At present, divisional survey teams are busily engaged in evaluating the utilization of completed facilities and in validating the need for programs projected for the second phase of development. Again, accurate local manpower data are essential in making program decisions because funds are simply not available to meet all needs. And, again, essentially the same information resources are being used.

So far I have been talking about the need for manpower information only as it relates to area vocational center development. However, the same need exists for all vocational program development regardless of where the programs are housed or the level of students at which they are aimed. Using the information and projections provided by the Occupational Information Consultant, an effort is currently being made to bring high school vocational education enrollments more closely into line with local and state labor market structures. It is recognized, of course, that complete agreement is impossible. Nor is it even desirable because it smacks too much of totalitarian controls. Nevertheless, it would seem that vocational enrollments should reflect a reasonably realistic relationship to the employment structure.

County superintendents of public instruction believe that at least half of all secondary students should be enrolled in a vocational education program before they graduate from high school, according to information provided to a legislative subcommittee. This proportion conforms rather closely to the figure of 55 percent developed independently by the divisional Occupational Information Consultant based upon national trends and a history of what happens to graduates of local high schools and to students who leave school before graduating, as nearly as this can be determined.

To help secondary school counselors and vocational teachers as they work with youth, the state labor market structure has been analyzed in terms of 250 specific occupations, using manpower data from the sources described previously. Wherever sufficiently definitive information is available, modifications have also been made to incorporate unique characteristics of local labor markets. When this is not possible, occupational distribution of local youth is projected against the employment structure of the state. A start has been made to assist secondary school students to make more realistic employment plans, but there is a long way to go. It does, however, represent one effort to come to grips with the phenomenon identified by the Penn State researchers.

In closing, I should like to briefly describe an innovation in the Florida program which is designed, among other things, to improve the manpower data-gathering capability of the vocational division of the State Department of Education. This is the establishment of an Industry Services Unit which was approved by the State Legislature, and which is scheduled for initial funding this fiscal year.

The unit is designed to provide a variety of specific services for new and expanding industries over and beyond those available through the regular vocational program supported by the state's Minimum Foundation Program. Included among these services is identification of the size and capability of the local labor supply in any community in which a new industry is planning to locate or in which a major industrial expansion is planned. Other services include assistance in developing manning tables; identification of specific job competencies required; development of courses, teaching manuals, and instructional aids to train people in skills which are in short supply; provision of specialized training programs to develop needed job skills; and provision of equipment on an interim basis until the training program is completed. All of this is to be accomplished within a definite time schedule so that an industry will be able to meet its established production goal.

When the unit is fully operational, it will include a director and assistant director, a labor market analyst, five labor market field men, one for each of the areas into which the state has been divided, several industrial engineers and curriculum resources specialists, a project coordinator, a technical writer, a technical illustrator, a research specialist, a personnel consultant, a coordinator of equipment procurement and control, and an accountant, supported by a clerical staff, warehousemen and riggers, and a programmer with ready access to computer capability.

It is recognized that the manpower data gathered will be of a specialized nature and will be designed for a specialized purpose. But if it is carefully coordinated with the information currently gathered and generated, the composite will provide much more complete and definitive information for establishing local labor market trends, and for making decisions about vocational programs and facilities.

In concluding, permit me to give concise answers to the questions which I believe are implicit in the topic of this panel.

1. Is precise manpower data necessary for vocational program planning? Yes.
2. Is local manpower data adequate? No.
3. Is the State Department of Education responsible for improving the adequacy of data? Yes.
4. How can this be done? Only through sheer work and money.

8

AVAILABILITY OF MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATION

PRIVATE RESEARCH SOURCES

By Daniel Creamer
National Industrial Conference Board

I should start out with some caveats. One, I certainly can't claim to represent private research organizations. I'm not even sure I'm entitled to speak for the National Industrial Conference Board. Perhaps more importantly, I also can't make any claim to expertise in this field; but having said that, I can also say that the Conference Board, and I, as part of the Conference Board, have been involved with some parts of your problem since 1964. It's that experience I want to share with you. I hope it will be of some help with your problem.

Our current knowledge from this brief involvement indicates that private research organizations are not engaged, in any substantial way, in generating manpower data for vocational-technical education. It may well be that literature here escapes us but, to our knowledge, this seems to be an accurate statement.

Much, however, has been and is being done on a variety of problems on manpower analysis, in particular manpower projections, chiefly in terms of broad occupational classifications at the national or regional level, and occasionally, at the level of metropolitan areas. Now, I take it this isn't good enough for your use. For information to be of most relevance to those concerned with vocational-technical education, the information needs to be highly specific as to occupational group, or family, and as to location.

Two projects of the NICB may be said to satisfy these conditions. One was completed several years ago but has a current follow-through and, we hope, a bright future. The other has just gotten underway but is planned as a recurring survey.

We carried out in 1965, a job vacancy survey in the Rochester, New York labor area. It was carried out with the use of a sample of 400 employers, excluding households, in each of three quarters in 1965. This was carried out by interview, and the schedule called for a list of unfilled jobs actively seeking to be filled. These jobs were to be listed by the job titles used by employers. Supplementary information was also asked of this sort: minimum acceptable related experience and educational attainment, and current or future starting date.

The company reports were aggregated for the labor area by translating company job titles into Dictionary of Occupational Titles. I think that's one important finding that has come out of this--that you can, in a satisfactory way, with sufficiently reasonable accuracy, translate local titles into the Dictionary of Occupational Titles. Of course you are stuck with the limitations of the Dictionary itself, but at any rate, you can aggregate company reports by using the Dictionary of Occupational Titles.

The summary reports for each of three surveys were circulated to the employers in the sample, to guidance counselors, and social agencies in the Rochester area. This is the main reason for my telling you about the survey.

About a month after the completion of the third survey, we carried out an opinion survey on the usefulness of this sort of information. The response was overwhelmingly favorable on the part of guidance counselors and all those concerned with vocational education. This may be partly because, as we heard from Mr. Horowitz and Mr. Neubauer, that there is so little available that any small contribution is very welcome. We did find it, nonetheless, a very useful addition.

Some of the companies, particularly the larger companies, weren't so sure. It seems now that they have had second thoughts on its usefulness. At any rate, there is an organization in Rochester called the Industrial Management Council which is composed of the larger employers in the area. They have now decided to continue this job vacancies survey which we have initiated, at least among their membership which constitutes quite a good sample for the area. This is not only for their own use, but because of the claimed usefulness of this sort of data by the vocational counselors and others in the field.

Of course data for three quarters can't be used to establish very reliable demand as to shortage occupations but if this were to become a continuing survey, it seems to me, you would have a very fine source of information for establishing shortage occupations—at least of the short term character. There are other types of information you can get which would throw more light on this, such as the duration of time the employers have been trying to fill vacancies. This is another indication of how hard it is to fill and if it truly is a shortage occupation.

My purpose in mentioning this to you is that if you agree that this is, or could be, an important source to you, that you ought to make this interest known to Congress. The Department of Labor, at the same time as we were carrying out our survey, carried out some exploratory studies of job vacancies in 16 different labor areas. For a variety of reasons they haven't released very much of the information, whereas we have a full publication on it. They continue to get appropriations for this exploratory work, but because of the climate of finance at the federal level none of the administration has asked for funds for a national program, at least in the last couple of years, and Congress has not seen fit to provide the funds. When it again becomes possible to initiate new statistical programs - the sums involved I'm sure are not large - our own very crude estimates suggest something like $8 to $10 million for a national quarterly survey that would provide information for 150 largest labor areas. When measured in terms of armament costs or of computer centers we're not talking about very much money.

The only opposition, aside from the potent opposition of no funds, comes from organized labor, primarily the research people in the AFL-CIO headquarters office, and for reasons that don't make much sense to me. At any rate, they've been opposed to it and will remain opposed to it. I think if you would bring some counterweight from your own professional group it would help. As I say, the climate changes and new programs are again possible.

Another project in which the Conference Board has just become involved deals with the demand for technical manpower and is close in some ways to what Mr. Neubauer has just told us about in the state of Florida. About a year ago some of the large manufacturers of electronic equipment came to us and said that despite the fact that these companies have been large growth companies, their growth, in fact, has been retarded by the shortage of technicians, not so much by professional manpower at the engineers level, but by technicians, defined as graduates of two year post-secondary institutes. As far as they could see this is a constraint not only on their current growth, but unless something is done about it, will be a constraint on their future growth as well. They wondered,then, if the Conference Board could take a lead in doing something about it.

As a result of discussions with industry representatives, with the U.S. Office of Education, with the representatives of the Department of Labor and others, we decided to try this sort of two-faceted approach. It's been our information, coming primarily from these company representatives, that too little is known in the high schools by vocational counselors, certainly by the high school students themselves, and, perhaps more seriously, by their parents about the career opportunities as a technician, that these are welcoming jobs, that they do provide stable employment, that many do go on to four year colleges. In large part, in some cases due to pressure from the parents or prestige reasons, they want to get an associate degree from a technical institute and then they want a four year degree. It is felt that if more publicity were given to these career opportunities the enrollment in these institutes would increase. It is claimed that these institutes can accommodate some thirty percent more than they now have registered, that is the institutes are being underutilized. The industry is claiming a rather acute shortage of employees with this type of training.

To attract more students to this type of training we have prevailed upon the Advertising Council. I don't know how many of you know of the character of this organization. It is a non-profit organization of the advertising industry that takes on advertising campaigns related to national problems. Perhaps the most interesting of their campaigns is "Smokey the Bear." They have been carrying on for a number of years, with the Department of Labor as its sponsor, this "Continue Your Education" campaign. In New York you see it in the subway in most of their ads. All advertising media are used in this sort of campaign. They have agreed now, and the Department of Labor will be a co-sponsor, the Office of Education will be a co-sponsor, along with the Conference Board, of this national campaign to alert high school students, vocational counselors and the parents of students, to the attractive careers open to those with appropriate aptitudes.

The other facet of our program is a strictly research one of trying to pin-point, if we can, how large this claimed shortage is, or if it is in fact a shortage and, if so, how large it is. To this end we are carrying out a survey of industry's demand for technical manpower. One schedule is used for the demand for engineers, another schedule is used for the demand for technicians. No sooner did we decide on this than we learned that an organization called the Engineering Manpower Commission, which is an affiliate of the Engineers' Joint Council, has been doing this sort of thing for a number of years. This documents my opening statement that I am not an expert. If I were, I would have known that they have been doing it. However, they are supported by a number of companies that support us. At any rate, we are now carrying out this survey jointly with the Engineering Manpower Commission and got them to revise the schedule to carry questions which, we think, pin-point this area more sharply than their former schedule did. We are asking for their hiring goals, for their hiring targets, in the twelve months ending June, 1968. We also ask for the actual hires, and this is by type, for example I have on hand the demand for technicians. How many did they plan to hire of new graduates of two year technical institutes, new graduates of four-year technology curricula, new hires from other school sources, employees newly upgraded to technician status and experienced technicians? We are asking them their hiring goals for the twelve months to June 1968, how many they actually hired in those categories, what was the shortfall, if any, then asking how many they plan to hire in these categories in the coming twelve months ending June, 1969. Now, if there was a shortfall in the number of people they really wanted to hire, we are interested in finding out how they adjusted to this failure to attract an adequate number of those they really wanted. In other words, how many were high school vocational graduates. It's our information that these are definitely second best. They much prefer to have graduates of a full two year post-secondary technical institute, because they have to do much less training on the job than they do with the high school vocational grad. That is particularly in respect to the mechanical industries. They just aren't given an adequate training. It becomes too costly. Let's say it is less than the optimum for industry to make use of those who have had such training. This is one way then of adjusting the shortfall of those they would really like to have. Another group would be other high school graduates hired as technician trainees.

We're asking this by specialty, but also by function, because I think it has been a shortcoming of the B.L.S. surveys on technicians that, in effect, it seems the responses they get are restricted to technicians who assist engineers or scientists. Industry uses them that way but they also use them in many other ways. Probably the largest number, and again particularly in the electrical and mechanical industries, are used for installation and maintenance, not for working with engineers or in the research laboratory, but out on their own as installation and maintenance people. So we distinguish then the functional areas: installation and maintenance, production, design and related, research and related, sales and related, etc.

Another question that we've added which may provide some of the information which you are seeking is this one, "In your opinion should the technical institutes and similar post high school training centers offer new curriculum areas? Yes. No. Yes - please specify." So this, I should say, should prove to be a successful survey. It is our plan to continue it indefinitely. This could then be one way of getting these industries' interests in new curriculum areas.

Along with the survey on the demand side, we hope to have, but haven't gotten around to designing, a survey of the training institutions themselves to ascertain the additions to the supply each year of employees with this training. We would then have a way of comparing the additional demand for technical manpower on the part of industry with the additions to the supply of technical manpower. This would be one way of seeing how well they are coming into balance.

Over 15,000 schedules have been mailed out in the past ten days. Since we are not dealing, in this case, with only associate companies from whom we do get a very high response, we don't know how large a response we will be getting. We hope it will be large enough at least for some labor areas so that we could break out specifics for a particular labor area or at least for a region.

I might point out that at least some branches of industry genuinely believe that there is a shortage. Evidence that they so believe is the fact that without too much effort--that is we wrote about 40 letters to 40 companies, something we did out of our own general budget--we did raise at this point some $91,000 by special contribution by 24 companies. This is both for the advertising campaign and some actual survey work. We do have here some sort of market test of the need for such information and we are going to put up the money to help out.

I might say, since one speaker referred to a two year projection, a group of some 30 personnel and industrial relations representatives from 30 companies were brought together last November when we discussed this program with them. I presented the proposal of one year projections of your planned hires, and there was some dissatisfaction on the part of a few saying they wanted to have a longer time horizon--two or three years. So then I asked them, "How many feel that your projections over a two year period are very firm?" No one would raise his hand. If this group is representative they have very little confidence in projections beyond what they are obliged to work on in a practical way for the coming year.

Another unconnected, administratively or historically, but related in content, is a project we have been carrying out in cooperation with Professor John Dunlop and some of his younger colleagues at Harvard University. This is an effort to determine the state of the art of manpower planning at the company level. We have held two meetings over a 2 and one half year period and we can see some development, but it's still fairly primitive, not very widespread. They are only beginning to get down to the production level of occupations. Heretofore, they have been concerned mainly in seeing that they had enough management people around.

Now that they are experiencing shortages of skilled workers below the management level, the front office is now becoming interested. In general, companies, at least the larger companies who are doing corporate planning--and you can't do corporate planning without planning your manpower input--are showing increasing interest. So more and more of this is going to be done and it will develop more and more sophistication. In time maybe it will become sufficiently widespread so that some agency such as our own, or the Bureau of Economic Research, or Brookings could collect these company projections and aggregate them and come up with some meaningful information, meaningful in terms of your own problems. This is even further in the future than the other two projects which I have mentioned.

On this last point I think you might want to keep in mind the possibility of what the computerization of personnel records might provide. As you well know there is this dearth of information on occupations, on employment by occupation. We haven't any detail. What we have is the decennial population census data which comes from the household and which usually is not provided by the person employed, but by some other member of the household who may not know, with any accuracy, what the employee's occupation is. But once personnel records are computerized and manpower planning becomes more widespread, they will have to have running records of employees, inventory of employees, so to speak, by occupation. Then it will be relatively easy for companies to provide employment by occupation. Therefore, it may be possible, if designed properly, to get a trend on the growing occupations, on the declining occupations. Again, if you have a large enough sample you can do this by area. I think this possibility should be kept in mind, but there again this is not here and now. This is something for the future.

MANPOWER DATA AND PROGRAM DEVELOPMENT

By Harold Duis
Service Program Officer
U.S. Office of Education

Those of us from the Office of Education recognize this as a very important institute. In fact some of us feel that this is the best expenditure of our Vocational Education Act funds that could be made, conferences of this type, particularly this one on manpower data. To those of us involved in vocational education information reporting, data, and statistics, this is extremely vital. I am very happy you are having this conference and I hope it will be fruitful.

Going back in the background, The Panel of Consultants in 1962 in its study reported that vocational education was not sufficiently sensitive to supply and demand factors in the labor force. They said that in comparison with present and projected needs of the labor force, the enrollments of in-school youth and out-of-school youth and adults were very small. They further criticized vocational education for not adequately preparing students with skills necessary to realistically face the world of work in our changing and complex economy.

The Panel Report resulted in the Vocational Education Act of 1963 which provided more flexibility and funds for strengthening and improving the educational opportunities for all Americans. Congress expressed its concern with training needs of the individual, regardless of age, background, level of ability and location - "to provide vocational education programs so that persons of all ages in all communities of the State will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training."

Vocational education is now in an evolution and comprehensive changes are taking place. Enrollment has increased from 4.5 million in 1964 to over 7 million in 1967. Post secondary enrollment increased from 170,000 to over 500,000 in the same period. Area vocational schools increased from 405 in 1965 to 1171 in 1968, making opportunities for broader program selection available to many more communities.

In the three year period 1965-67, enrollments in each occupational category increased, but the percent distribution decreased in some categories. For instance, agriculture, one of our seven occupational categories in 1965 had 16.3 percent of the total enrollment, in 1967 that decreased to 13.7 percent. In home economics in 1965, the percentage distribution was 38.6, and that decreased in 1967 to 31.1. Some of the others, office education particularly, increased from 13.5 percent in 1965 to 22.4 percent in 1967. The other occupational categories remained about the same.

Similarly, if you look at the expenditures for vocational education during this period, and look at them by occupational group, they show some changes. In agriculture, in 1965, the expenditure was 17.8 percent of the total, in 1967 it had decreased to 13.8 percent. Home economics similarly decreased from 20 percent to 16.7 percent. In technical education the decrease was from 12.8 percent to 10.2 percent. On the other hand, distributive education expenditure increased from 4.4 percent to 6.8 percent. In the health field, the expenditure increased from 4 percent to 4.4 percent for this three year period. Office occupations, as you would expect, increased from 11 percent to 17.7 percent. In trade and industrial education the expenditure held about the same, increasing from 29.7 percent to 30.2 percent.

Likewise, you could look at the expenditure increase looking at only one year--let's say the 1967 year over the 1966 year--as far as the total expenditures for vocational education are concerned. This might be significant. In the field of agriculture the increase was 11.8 percent. Of course, you would expect an increase in all of the categories. In distribution, the increase from '66 to '67 was 76.9 percent; in health, 46.8 percent; in home economics the increase, 11.4 percent for useful employment, but for gainful employment there was actually a decrease of 25.9 percent. That we can't quite understand. Office education increased 39.4 percent; technical, 24.6 percent; trade and industrial, 17.2 percent; and the fisheries occupation, 59 percent increase. Again, this shows increases for some occupational areas.

The questions that I want to raise are these: Is this the right distribution of enrollment? Is this the right distribution of the expenditure of funds? Is the trend in the right direction?

The recent Ad Hoc Evaluation Committee that spent a year studying vocational education, even though very complimentary in many respects, of the accomplishments of vocational education, again had some criticisms. As is true of any report, you'll find a lot of things that are favorable and you'll find some things that are critical. I would like to call your attention to one or two of the criticisms that this committee again leveled at us in vocational education, and others, as far as our program is concerned.

The first criticism, and they were rather critical, as was the early panel, about the lack of information, but this is what they said: "There is no evaluative data available to ascertain whether the programs offered to the increased student population have given the proper emphasis to the occupations for which suitable jobs are available." That's quite an indictment. "There is little evidence of much effort to develop programs in areas where critical manpower shortages exist. Examples are low enrollments in health occupations and technical programs. While annual percentage gains in enrollments are quite large, the actual number of persons enrolled in these programs is extremely small in view of the potential labor needs. It is also significant to note that these programs are primarily post-secondary.

"An apparent cause of low enrollments in these two categories is a restricted number of available programs. Technical education programs have also been severely limited. It would appear that electronics programs have been heavily stressed, closely followed by programs in drafting design; however, there is presently considerable need for programs extending over a wide range of technical occupations. Greater interrelation is needed between secondary and technical programs to prepare students for career jobs." That's the first one.

I'll just highlight a few of the others to indicate the concern of this Ad Hoc Council. They say here the State Vocational Education reports ". . . do not present data on the nature of the education programs, i.e., costs of specific courses within the categories, types of programs, types of new programs, characteristics of persons within the four groups . . .", etc.

Here's another one that will be of interest to many of you. This is on the relations with the Federal and State Employment Services. "The 1963 Act requires that state plans and projected activities include provisions for cooperative arrangements with State Employment Service offices for occupational and labor market information, vocational guidance and placement services. Though some preliminary sparring occurred, little progress was made during the first two years. Educators accused the Employment Services of failing to provide the required labor market information. The latter countered that the educators had yet to define their need. The Employment Services also complained that they could not supply additional services within the constraints of their existing budgets. Yet, there was no provision for transferring of vocational education funds or purchase of necessary services."

One more, "The problem is to develop parameters that have a direct relationship to the world of work, encompassing both services to people and occupational categories. The issue is not immediately to discard occupational categories." Those of you, particularly in vocational education, know that there has been a lot of criticism of the seven occupational categories that we have had. These came about because of the earlier legislation that you may not know, the Smith-Hughes and George-Barden Acts, our former vocational education acts which had appropriations authorized by category. In other words, there was so much money to be expended for agriculture, so much for home economics, so much for trade and industrial education, and as a result those seven occupational categories developed. As it turned out, we are finding more and more each day that they are not too bad. The committee recognized that year that virtually all occupations that you can think of can fit into these seven categories very readily. It is a large cluster of course, too large, but a breakdown is possible.

"The issue is not immediately to discard occupational categories. They are essential for reporting purposes in order to parallel occupational, labor force, manpower and census data. It is quite possible, however, that funding can be accomplished more appropriately with reference to parameters other than occupational categories. Regardless of the difficulties related to the reporting by occupational categories, the reporting requirements should not stand in the way of program development. Although it is necessary for the reporting of vocational education activities to parallel the reporting systems inherent in the world of work, the necessity of reporting by occupational category should not hinder or prevent the extension of vocational education programs to include all occupations necessary to serve all the people."

I commend this report to you. There are some things in the report that I think would be of interest to you, particularly with regard to the recommendations. As many of you know, this committee did make 26 recommendations, some of which would be very helpful in solving some of the problems. One of these recommended that a Department of Education Manpower Development be established at the Cabinet level. Another one that interested us very much was the recommendation that the new act provide funds and require the Office of Education to be responsible for collecting data and preparing an annual descriptive and analytical report on vocational education to be submitted to the President and Congress. The important thing there is to provide funds to do this job. This would make funds available not only on the National level but also on the State level. This committee is firmly convinced that if this is the type of data we need that we're going to have to pay for it, and we agree. They stressed also the evaluation and many other things that I think are of interest, and some day I think some of these will develop.

As you can readily recognize, one of the perennial and ever-changing problems of vocational education has been to relate the programs to actual labor force needs. To date this relationship of programs to needs has been achieved largely through the use of advisory committees on the local and State levels. Also useful have been locally conducted surveys and indications of need by employers.

Considerable criticism has been forthcoming that vocational education has not always paralleled the greatest need in the labor force. Yet there is little evidence to show that any vocational education program did not lead to gainful employment. In fact, follow-up reports from the States indicate a placement of 80 percent of those available for placement in the job for which trained or related and ranged from 67 percent in agriculture to 92 percent in health. The unemployment rate of vocational education graduates is 4.0 percent compared to the national figure of 14.5 percent for all high school graduates. What are needed, however, are more sophisticated studies of follow-up of students over a longer period and job success. Coordinating vocational education with changing employment needs is an exceedingly complex task. Preparatory programs cannot be turned "on" and "off" overnight. Individual interests, abilities and desires of students must be considered, as must mobility. A partial answer has been placing emphasis on the occupational family or cluster concept (OE Code). Another technique has been the use of the work-experience type programs to make broader experience possible.

Vocational educators need much more information than is presently available in most States to adequately plan programs, information such as education and skill requirements by job content and level, occupations becoming more technical, new occupations emerging, entry requirements for occupations which disadvantaged persons can fill, and additional training requirements needed to advance on career ladders. The State plan, subsequent to the Vocational Education Act of 1963, contained cooperative agreement between the State Board and State Employment Offices to provide for exchange of needed information. A favorable attitude of cooperation has developed in most States; however, there are problems that exist such as:

(1) Lack of personnel and finances in the Employment Service to collect the data needed.

(2) Lack of available job opportunities information. Usually the information that is available is too general, for instance, we can get information on the number of jobs and the opportunities there are in manufacturing, but what good does that do us? Manufacturing covers such a broad area that it is hard to relate it to the training program, or you might have very good information on professional-technical and kindred occupations, but again that is a very broad category and it doesn't tell you very much about registered nurses who may be included in it. Also, we need information that can be related not only to the National level but to the State level and down to the local level.

(3) Difficulty in relating DOT and SIC codes to the training programs. I think our new OE Code - DOT Conversion Tables will help solve this problem so that we will, in fact, be speaking the same language.

(4) Assistance needed in interpretation of data for trends, employment areas, mobility and training needs of unemployed.

(5) Identification of specific needs of persons already in labor market. We just don't know enough about people already in the labor market and what they do need.

(6) Specific job skills required for the job which can be served in a cluster concept program. We talk a lot about the cluster concept, but do we know enough about the job skills required?

(7) Difficulty in relating data from Bureau of Labor Statistics, Department of Commerce, Industrial Management groups, and other organizations.

(8) Follow-up information not sophisticated enough.

Now a few words about projected program activities. This Projected Program Activities document which originated with the Vocational Education Act of 1963, we consider a very important tool for administration. It is the State's annual plan. The latest revision of this document, which is being used by the States this year, was an effort to clearly present program plans in relation to complete job market information.

Previously, we had some general questions, some general labor market information statements, but we found that there were great voids. Most States when they reported gave us a very fine explanation of certain occupations and maybe certain labor market areas, but as a whole, covering all occupational categories or covering the entire State, the information was lacking.

In this document we have made an effort to bring this together into a package which will more nearly give a complete picture of the State. For those of you who are not familiar with this Projected Program Activities document, this is a document that is due in our office prior to the beginning of each fiscal year as an annual plan. This year, another new feature of the document is that it not only covers a one year period, it also includes some projections for a five year period. This was thought to be essential because on the National level budgets and various types of planning are done on a five-year basis. Many of the States are already doing it so we thought we could crank into this document some five year planning also. So, starting with the first part of the document, Part A has to do pretty much with the present status of things, the labor market information, job opportunities, and includes the State map, lists the area vocational schools in the State, has some information on the advisory council which is required in each State. The second part of the document is really the plan based on the information listed in the first part. The detailed plan has been pretty much paralleled after the Vocational Education Act purposes. In other words, we have six purposes in the Act so the second part pretty much pursues that track - plans for high school programs, post high school programs, instructional and ancillary services. The document ends with the budget for one year and for five years.

A word or two about the importance of the first item in the document, that is the item where we look to the Employment Service for a lot of help. In this part of the document the State is to summarize the current and projected manpower needs and employment opportunities in the State for the next fiscal year and, if possible, beyond for the next five years. We treat it from the standpoint of labor demand and then labor supply. The idea is to mesh the two and see how they match. This is the demand, this is the supply, this is the unmet need. This is the gap that needs to be filled.

In the document this year we had a very simple table which was to be a summary of the entire picture. It was summarized in such a way that some people said, "It doesn't mean a thing because you have trade and industrial education there and that includes some 300 occupations for which we train in the State." At the same time, it brings together all seven categories and we do know something about all seven categories.

I've been very pleased with the documents which have come into our office up to this point. They are much improved and I believe it is the first time we have had a complete picture. The problem has been, in the past, that it was easy for the State to say that the Employment Service doesn't have any information on agriculture so it's not available, so that was the answer, "Not Available." That doesn't help anyone. Whose responsibility is it to get it if it isn't available? Whoever is filling out the report better do something because now you can't send it in blank. You must put something in this report. As it turns out much of the information is available. You may have to go to the Census, you may have to take ten year old figures, but at least there is information available. You do know the current employment, at least in most occupations. For instance, taking agricultural production as an example, what evidence do we have that we are training too many farmers, or that we are not training enough, unless you have the figures? We have been very much criticized that we are training too many farmers. I don't know whether we are or not unless we have the facts and figures to show that we are, and the States that have presented facts and figures usually end up with the fact that they are only training half enough.

How do you determine this? First you must have current employment, then you must know what the expansion needs are or, if there isn't an expansion, what the decrease will be in the next year or the next five years, and what are the replacement needs, because obviously these people are going to die and retire and leave and so forth, so there are going to have to be some replacements. You have then total need for new people each year and in five years. The same way with the output, the supply. This is a difficult one because in vocational education we know what our output is, but how about the other sectors? The private sector may be training more than enough people, but we don't know unless we bring that into the picture, and consider other State and local training programs as well. So we ask for the output not only for vocational education but also the output for other sectors. This is a problem but I think States are gaining on it, and I think eventually we'll know.

The fact is that nationally there may be some pretty good information available but vocational education is a State program. The National office does not operate any programs. It is a State operated program - State and local - but the State is the unit. The National office can accumulate all of the States and make a National figure but it shouldn't be the other way down. In other words, if you knew what the employment demands were nationally and you knew what the output was nationally it still may not mean a thing to your State, likewise it may not mean a thing to this local community. The important thing is that the State is the unit.

Without this manpower information there would be no plan. As I say, I'm very pleased to report that projected activities are coming in this year. They are running late because we were late in getting the outline out, but they are much improved and it's amazing how much information the States can get together when the pressure is on. Those that I have looked at so far generally indicate that they are getting some pretty good data on demand and supply, and they're getting a pretty good picture of how these mesh.

When the additional information suggested here becomes available to vocational education planners from the public employment services and other sources, it will be of great assistance in developing programs to meet the training needs of all persons in all communities as envisioned in the Vocational Education Act of 1963. That is the challenge we have in program planning. We want to carry out the mandates of the 1963 Act which we think was a good act. Although progress to this point has been slow, we think we're beginning to move along faster and this type of conference will do much to promote such progress.

UTILIZATION AND EFFECTIVENESS OF MANPOWER DATA

By John Odgers
Director of Guidance and Testing
Ohio Department of Education

I should mention that I have worked in the Employment Service as well as the Department of Education. I had the real good fortune of spending a little over four years in charge of youth placement, testing and counseling back pre-World War II and in the Manpower Utilization of the War Manpower Commission in Ohio during those years. I wouldn't trade that experience for a couple of degrees as far as my background is concerned.

Because of the many exciting things with which we have already become involved, I'm not going to make a speech or present the paper which I had planned, but rather I'd like to present a series of reactions which, I hope, will convince us that we are well into a truly highly productive conference.

First of all, I'm glad to see that we haven't been able to get any cut and dried agreement on what we are talking about. I think you've got to have confusion before you have clarification. I'm glad to see us beating around the bush before we get down to specifics. I would be disappointed if we looked only at manpower statistics and projections, trying to identify needs as a basis for curriculum planning, for example. This is an important part of our task, however it is only a part.

I'm glad that we see the need for job information, that is, what workers do, what qualifications they need, etc., as well as labor market information, that is, the numbers and trends, and the projections, and that we also consider training information, training opportunities and demands, as an important part of manpower data. I think that maybe we have some misgivings on these things yet, and feel that maybe we should be talking just about manpower statistics, but I think we're moving in the direction of looking at all of these. To me, this is good.

We have identified some other important aspects of this whole topic of manpower information, too. Often these come up in the form of dichotomies, for example, we talked about gross data versus specific or local data, we talked about projection information versus promotion or recruitment-type information, we talked a little bit about the importance of information as it relates to opportunity versus that as it relates to aspiration. I want to come back to that one in a few minutes. We talked very definitely about formal types of manpower information, and we have cast some ideas in the direction of informal approaches. This is another one I'd like to talk about a little as we look at some of the guidance uses of manpower information, particularly as it relates to curriculum and to vocational education.

I think that we have recognized that labor market information may be more important to some youth and to some schools and programs, while job information may be more important to others. I'd like to belabor this point just a little. As counselors work with kids they see some of them for whom the labor market condition has no significance whatsoever. Here's a kid who is bound he is going to be something whether there is any real opportunity in the labor market or not. He is convinced that this is the approach that he wants to take to making a living and that he can make a spot for himself even though it's a tight labor market. For this person, or for young people of this type, the labor market situation is not particularly important; but, on the other hand, we have, I would guess, 30 or 40 percent of our young people and our adults as well, who are non-selective vocationally. To them the ingredients of a good job are: some job security, three square meals a day, decent working conditions, a reasonable boss and a paid vacation. Many of these people would be just as happy and content and productive driving a bread truck, or operating a punch press, or working behind a counter, or maybe on a construction gang somewhere. These are the types of people for whom labor market information is more important, because what they do is going to depend upon societal needs, on what the opportunities are for employment. So I think, from a guidance point of view, and from a curriculum and planning and training point of view, we need to keep both of these types of people in mind.

Since my bias is that of a guidance person, I would like to start by reviewing the vocational guidance responsibilities of the school counselor as I see them - first with respect to individual students and then by way of implications of the counselor's role for activities other than just guidance of kids.

The vocational guidance responsibilities of the counselor, regardless of his setting (school, employment service, vocational rehabilitation office, or neighborhood youth center) are five in number. They are:

1. Helping each counselee achieve a useful level of self insight. This involves helping him to gain a clearer understanding of himself - his strengths and limitations, his interests, aptitudes, skills, abilities, attitudes and drives.

2. Helping the counselee to achieve a workable understanding of environmental opportunities and demands. This involves helping him to understand the choices he faces, the opportunities open to him and the qualifications required for the goal he sets. It also involves helping him understand that decision making at this stage of the game is really direction setting rather than goal setting; that he will be making vocationally related decisions most of his working life. (Maybe that's another way of saying

we're going to be changing jobs six or seven times; but basically we have to be organized for change and we hope the guidance process is one which gets a young person in a mood for decision making. It really is to a certain extent a very special kind of instruction in the art of decision making.)

3. Helping the counselee make the wisest possible educational and vocational choices and plans, based on his understanding of self and environment, and recognizing that the nature and level of his aspirations have a direct relationship to the urgency of specific decision. (The higher the level of aspiration the longer that specific vocational choice can be deferred. A young person who is going to be a job seeker immediately after high school must perforce make a specific decision much earlier than the boy who is looking in the direction of theoretical science.)

4. Helping the counselee to initiate action on the plans he has developed or the decision he has made. This is in reality a placement function, if placement is considered in its broadest terms - to include enrollment in a course or curriculum, referral for special service such as health, welfare, rehabilitation, admission to a post-high school training program, or immediate vocational placement.

5. Helping the counselee to assume the responsibility for his own decision making, and to accept the responsibility for the decision he makes. (What I'm saying here is if you think the counselor is there to tell kids where to go or which courses to take, you're all wet. I hope your counselors aren't doing this.)

The individual who receives vocational guidance should, as a result of his increased understandings and skills, be better able to handle future decision making on his own. So much for the individual aspects of this, let's move ahead and look at the school side of it.

Helping the school provide a program so that each pupil can achieve these objectives involves a great deal of work which, first, puts the counselor in a working relationship with curriculum planners, vocational education supervisors, and the vocational education program, and which, second, demands that the counselor use adequate and up-to-date manpower information.

One of the major concerns of school administrators and boards of education today involves the development of curricula which will help provide for the varying needs, interests, and capabilities of students while at the same time being realistic in terms of societal needs and the existing opportunities either for employment or for training beyond high school. Certain identifiable conditions need to be met before the initiation, expansion, or modification of any curriculum can be justified, and the counselor is often in a key position to contribute to the deliberations on curriculum change. What I'm saying here is that the counselor is not a curriculum specialist, but, certainly, if our schools are in business to meet the needs of our kids and our communities, and if the counselor is trained and is an expert on the needs of kids and on community resources, he has an important role to play.

Naturally, the conditions which effect curriculum change will vary greatly in terms of the particular problem under consideration. For example, the conditions which would justify the addition of a remedial reading program in a school would differ greatly from those related to the introduction of programmed learning, or Computer Assisted Instruction in the teaching of Spanish, or the addition of a course in construction electricity. These are all curriculum problems. The last one is certainly one we are concerned with here, isn't it?

All of this involves the intelligent use of manpower data. The counselor's role in curriculum development is probably best illustrated by describing the steps necessary in determining needed vocational education in a school district or a jointure. I'd like to do this by mentioning very briefly a four step approach which we have been using in Ohio for 15 or 16 years, with gradual increases in sophistication as we have moved along the line. There has not been any major vocational curriculum expansion or any introduction of an area vocational school in the state over the last 14 or 15 years but what we have gone into the community, worked with community leaders, school leaders, business and industry leaders, and employment service leaders, in conducting a four-pronged type of survey to get the background for curriculum expansion and development.

These four survey areas are as follows: the first one would be an occupational survey of the school district or the area served by the school in question. In Southern Ohio Appalachia this might be the whole state because these are out-migration youth. They won't stay at home to work because there are no jobs there. In a large city area it would be the immediate labor market. This involves getting the labor market information, a picture of the occupational pattern, shortage areas, hard-to-fill jobs, this type of thing. This is only one part of the picture.

The second part involves making a survey of employer attitudes. This requires direct contact with all of the major employers, the employers of four or five or more people in the community, to get the attitudes of employers toward the end products of the vocational programs being considered, or to get their attitudes toward the employment of co-op students, if a cooperative type program is being considered. The show won't go if the employers aren't interested in the end product or the products in process.

Thirdly, we conduct a facility feasibility study. This involves a look at the plant and the equipment, or the potential plant and equipment, that may be available in the community. This is the area that is directly related to finance. It may include looking at the need for a bond issue to build a new wing on a comprehensive high school or to build an area vocational school. It may involve helping to solve the legal complications of a jointure and the establishment of a new vocational school district which overlaps anywhere from two or three to ten or fifteen existing school districts, and has the power to tax. It may involve a variety of things related to the facility problems in the area in question.

Finally, the fourth aspect of this program is a careful evaluation of student interests, because if we don't have kids who are interested in enrolling in the courses, we might as well not initiate the courses. So the fourth aspect of the four-pronged study involves a student interest survey, a research study really.

As we make these surveys throughout the state, we do it usually by utilizing a team from the State Department of Education, one from each of the vocational services, Agriculture, T & I, Home Economics, Distributive, Business and a guidance person. We rotate the chairmanship so that for every sixth survey one of our guidance supervisors is the chairman from the state staff. This state staff group teams up with the local school administrators and local guidance people and others to form teams to work closely with the Employment Service in getting the labor market information. But I would hasten to say that getting our labor market information only from the Employment Service, good as it might be, would be the wrong approach in this type of survey, because if you get information in this way you get only information and you don't get involvement. One of the important outcomes from conducting a survey to determine need and to move ahead in vocational curriculum expansion is getting the community involved. That's the reason why we go out on an industry-to-industry, or employer-to-employer, basis with teams of one State Department person and one local school person, to talk with business and industry leaders, to get the picture of their job openings, the types of people they would employ, some of the problems they have.

Incidentally, we have found very definitely that supply and demand information alone is not enough. You can get supply and demand information, but to know that there are going to be 50 openings in the machine trades area of a certain industry is useless information if you don't also find out whether or not the only entrée to this particular job is to get into this company on a labor basis and then bid as the openings occur, because the union contract prevents anybody from moving directly into a machine operation category. Existing contracts may have a very definite effect with respect to your plans for vocational education expansion. So you need more than just labor market information. Basically, what I'm saying is that you need the involvement of getting out and gathering information and not just collecting it from statistical or other resources; but don't fail to involve the local people who have good information. Their information, and their interpretation of the information you gather, are both important, because you'll gather some opinion which isn't necessarily fact. Often, though, the accuracy of the information which you get in a community survey may be secondary to the value of the involvement of the community to the extent that you get the community behind you in working toward the expansion of the vocational education program.

Let's get to some specific examples of utilization of manpower data. To do that I have picked out a few items that are direct quotes from follow-up reports that I collected last summer, as a follow-up of a National Seminar that I directed in the summer of 1966, for State guidance people from throughout the country on the vocational aspects of guidance. This seminar put a great deal of emphasis on the need for occupational and labor market information. In our follow-up, we contacted all of the 48 states that were involved in the seminar and asked them to send us statements of things that they had done, or that they had specifically planned for the coming year, that were a direct result of our seminar. I have picked eleven or twelve of the follow up reports at random. Going through them last night, I found 8 or 9 of them that listed specific things that they have done since that 1966 conference that are directly related to our topic here - manpower information. I'm going to rush through these and quote from three or four state reports:

From Texas: ". . . development of a Counselors Guide to Vocational Education." This was an identification of manpower information as it related to vocational courses there.

From New Mexico: "We have widely distributed a new booklet entitled Vocational-Technical Education in New Mexico. We have developed a library of taped job interviews with local tradesmen. The guidance division has increased by about 80 percent the flow of vocational information to counselors in the state."

From the Commonwealth of Massachusetts: "This office, with an assist from one of the local papers, The Boston Record-American, has been placing in a one-day printing, a column entitled 'Career Guidance Tips' (enclosed). Every type of occupational endeavor hopefully will be covered - everything from Baseball, the F.B.I., Science, down to labor occupations.

Printings from these columns have been photographed and have been placed in every secondary school guidance office and library in the state. The columns described and enclosed with this letter have had a meaningful effect on our counselors. Specific jobs and occupations have been the discussion point at our counselor workshops . . . counselors have contributed topics they wished to see studies on. Columns on the F.B.I., Baseball and a few others have been injected for reader interest and to attract youngsters. The columns on such items as Health Education were used to educate our own counselors on new educational opportunities." So here is a newspaper series that was an outgrowth of that conference, and it has been an effective series.

From Wisconsin: "The Wisconsin State Board of Vocational, Technical and Adult Education in cooperation with Stout University is conducting a two week institute for high school counselors. The objective of this institute is to help counselors by providing them with needed vocational and occupational information." They attached an agenda and statement of purpose. I won't go into detail on these.

From Colorado: "Development of Meaningful Occupational Information System. In process - equipment purchased, some information developed." It is going to be directly related to the dissemination of occupational information through the use of special VIEW or microfiche equipment.

From New York: "Cooperative relationships have been initiated with this Department of Education and the Employment Service of the State of New York and the USES. A task force of the above personnel is exploring the creation of manpower data for school counselors' use."

Those are just a few. I have more here but I won't take time to go through them; but you see that here again are specific applications of manpower information in a school setting, in a guidance setting.

I might mention that successful state level programs and services are directly related to the investment that is being made by the State in developmental activities and in publications. The states which are producing the best programs and materials are the states which are investing the most money.

I'm going to talk for the next few minutes, most of the balance of the time remaining, about some of the things we are doing in Ohio. I do this with apologies in advance, but I do feel that you're interested in specifics. If we can show you some of the things that are coming out as a result of some major financial investment it may be of interest to you. I hope you can go home and say "We're going to spend more money for guidance if we can get this type of results in our state."

Ohio has a Division of Guidance and Testing which I have the good fortune to direct. It is a parallel division with the same status as our Division of Vocational Education, so that Dr. Shoemaker, whom you heard Monday, and I are co-division directors in the Department of Education. I might say we're co-a-lot-of-other-things, too. I spend about $300,000 a year of his money, ancillary money from the Vocational Education Act of 1963 and any place else Byrl can get his clutches on money for guidance purposes--direct guidance purposes related to the vocational aspect of guidance. He's paying the salaries of 3 professional staff members on my staff.

I have a staff of 22 professionals, plus support personnel and services, our own document reader operation which hooks in with departmental computer services, and a variety of others. We're spending about $600,000 a year at the state level for personnel, materials, publications, and research studies. We feel that it is paying off. Incidentally, about half of this is NDEA funds which come from federal appropriations for use in the state in developing and expanding guidance services. Our state advisory committee of school administrators and pupil personnel directors and others, says that the few additional dollars local schools would get for a counselor, if we weren't doing this, wouldn't help them nearly as much as when we spend it at the state level and give them materials and services. I want to highlight a few of those materials and services because we feel that here is the payoff. The only things that I'm going to mention now--and I'm going to wave a few of the publications at you--are aspects of the program which are related to our topic of manpower information and its use. This will be covering maybe half of the things that we're doing, but they are the ones that you came here, I think, to hear about, so let me highlight just a few of them.

We have a typical mailing list of 4,200 for the things that we put out routinely. This involves between 2,500 and 3,000 counselors. It involves the directors of our vocational programs in most of our schools. It involves every Employment Service counselor in the state, every Vocational Rehabilitation counselor in the state, every Youth Opportunity office in the state, a variety of Urban Leagues and other groups which provide organized counseling services. We get a lot of help from them in return, but we feel that this type of cooperation is important. First I'd like to wave at you our Notebook Series which started about six or seven years ago with our Ohio College Notebook. This is the sixth Ohio College Notebook. For every college in Ohio it lists such information as enrollments (male and female), costs, admissions procedures, and other information important to the counselor and the college-bound student. This is one important type of labor market information, if you will, which is important if young people are to plan their vocational preparation wisely.

But knowing about college opportunities and demands is not enough. Our Ohio Public Technical Education Programs notebook provides similar information for all public technical school programs in the state, and our Ohio Vocational Education Notebook does a similar job of describing high school level vocational education programs. It is broken down to describe all major areas of Vocational Education. For example, here's business and office education, here's distributive education and so on. For every vocational course offered under each of these headings, the following information is provided: Program Description, Program Objectives, Related Background Experiences, Career Opportunities, Resources for Use in Orienting and Counseling. Finally, there is a blank spot for local information, so that each school can localize the information for its program. We also have these program descriptions available as separates, so if a school wants additional copies of just those related to the courses offered in that school, they can get them or they can duplicate their own.

We have the Ohio Apprenticeship Notebook which lists every apprenticeable occupation in the state. The centerspread is a map and shows where the apprenticeship programs are in the state. Here's information for every apprenticeable craft. I just opened up to cement mason and it gives the descriptive information, the wages an apprentice might earn, eligibility requirements for entrance into the apprenticeship, recommended high school courses, selection criteria, cities in which the apprenticeship training is available and then a blank page for local information that the counselor can write in. This publication was one of the most difficult to develop. We worked with the Ohio Apprenticeship Council and the Bureau of Apprenticeship and Training folks. This was our first attempt in this direction. It will be better the next time. We found that it was very difficult to get Apprenticeship people to talk in terms of minimum qualifications. They wanted to list what they would like to have, so next time we're going to do both. We're going to ask for the minimum and the desirable and then we'll really get a complete picture. We went one step further for our Appalachian counties. We surveyed apprenticeship opportunities in Ohio Appalachia and here we identified by the name of the company and by the contact person, whether it was the Journeyman Apprenticeship Council or a committee, so that the counselor could go to every single apprenticeship program in each of the 28 counties in southeastern Ohio Appalachia and see what apprenticeships might be available.

That's the Notebook Series. This is a type of labor market information that we feel is vitally important.

Incidentally, in addition to specific information of this type, we feel that the counselor needs to know, and to know how to get, information from a variety of sources. I think that all of you but the latecomers got a copy this morning of our Sources of Occupational Information. This has been a biennial publication for about ten years. We started out with 40 Sources of Occupational Information, then 50, then 60, then 80, then 100. We finally took the number off. This is not a bibliography. It is a list of sources of bibliographies, or sources of information. You'll find here all of your government sources and a variety of other sources.

We were talking the past couple of days about school-Employment Service relationships. I'd like to mention that the best thing to do if you have complaints about service or lack of service, whether you are in the Employment Service or the schools, is to go to your source of complaint. I guess possibly part of our good fortune has been the fact that I did work four and one-half years in the Employment Service and that there are some of the folks from 1940-44 who are still there, so we have good personal acquaintanceship over the years; but basically we have gotten together on a number of occasions, our most recent being just about a year ago, to develop Guidelines for School-Employment Service Cooperative Relationships. Every counselor in the state, every Employment Service office and Youth Opportunities center has these. This was not developed by two or three of us sitting on our haunches in Columbus. The committee that developed it included seven people from Youth Opportunity centers, 4 people from the state office of the Bureau of Employment Services, 1 director of student personnel from one of our technical institutes, 3 local school guidance people, 5 people from my staff and a counselor-educator. It was done in draft, was sent out for review and revised. I have 120 of these in the mail so you may have copies before the day is over.

Major headings of this publication are: The Purpose of the Guidelines, General Objectives Commonly Shared by the Bureau of Employment Services and the Schools, The Role of the Ohio Schools in Meeting These Objectives, The Role of the Bureau of Employment Service in Achieving These Objectives, Possible Areas of Cooperative Relationship, and Suggestions for Initiating Cooperative Relationship Between Schools and the Bureau of Employment Services. This we feel is key because you can have the best of intentions on the Federal level and again on the State level but it isn't going to operate unless we get the things going on the local level.

Incidentally, by contract agreement the Employment Service has released the General Aptitude Test Battery to our Division of Guidance and Testing. We in turn contract with the local schools for the use of this aptitude test battery. We have trained over 800 already certificated practicing school counselors in the use of the GATB. We have developed our own School Counselors' Guide to the General Aptitude Test Battery which is much more effective in the school setting than anything the Employment Service has because it is geared to the school counselor operation.

We have developed the Directory of Guidance Resources of the State Rehabilitation and Employment Agencies in Ohio, and also one of School Counselors which we give to Employment Service and Rehabilitation people. Everybody has available the names of resource people in the other agencies in their areas. We feel that this is quite important.

There is one thing that I won't have time to go into in detail. Since the development of the third edition of the Dictionary of Occupational Titles, we've come up with a new theory of vocational interest, a cubistic approach based on the data-people-things concept of the new D.O.T. and the worker trait groups. We found that by using this approach, we could plot every job in the Dictionary into a matrix that we developed by taking the data-people-things nine point scale that the D.O.T. provides, condensing these into a three point scale to set up a 3 by 3 by 3 matrix, or a cube with 27 cells. Every job in the D.O.T. falls into 1 of 24 clusters of occupations based on the extent of its involvement with data-people-things. It's been a fascinating study and has resulted in our development of the Ohio Vocational Interest Survey. It got bigger than our state testing program. Because we don't want to go into the national testing business, Harcourt, Brace and World, Inc. is publishing it for use on a national basis. It will be nationally standardized next January. It is state standardized now and we've been working with Florida also on standardization down in Brevard County. They have been using it, we have been using it. A year from now we'll have the new Vocational Interest Survey available nationally, built entirely in relationship with the Dictionary of Occupational Titles and directly related to the G.A.T.B. I have 10 or 12 copies of a brochure describing this instrument if there are any of you who are particularly interested. If you want more detail, you should make a note to write Harcourt, Brace and World about 6 months from now and they'll provide you the information. This is a type of developmental work which cannot be done without many extra hours of time and effort.

I've got 2 or 3 more quick items. As you came in, you all picked up the color charts which Dr. Shoemaker discussed on Monday. You will find that the set contains 2 or 3 other charts which he did not discuss. The charts were developed jointly by the Vocational Education Division and our Division of Guidance and Testing. The third chart, the one that shows the two maps, will, I think, be of particular interest because it shows the information we have collected for 57,000 high school sophomores and juniors during the two-year period 1964-66 concerning their plans for high school and beyond. We find that 72.6% would like to have vocational education in high school. This amazes us—the number who say, after some orientation to the setting, that they would like vocational education in high school. Of this group, 12% say that they don't plan education beyond high school, 33-1/3% say that they do want further training after high school, but not college, and over 1/4 say that they plan to go to college. We also have a picture of those who don't want vocational education in high school. This type of information is highly significant to us in our planning. It has also been very meaningful in working with the community surveys we discussed earlier, since we can show school administrators, parent groups and others that many youth do want vocational courses, that they don't want just straight academic courses or general courses.

One other folder you have, this little blue one, I call to your attention because it has two excellent papers which were given at the Marquette Seminar on Vocational Guidance. One is by Bob Jacobson from the U.S. Chamber of Commerce and one by George Rietz now retired. George was with General Electric and represented the National Association of Manufacturers at the Seminar. This publication identifies the types of informal manpower data, if you will, the types of services you can get from industry groups. We should have another publication like this concerning cooperation with labor. I don't have other examples here today, but we do work closely with labor organizations.

Before closing, I would like to share one additional publication which was brought to the seminar by another Ohioan. It's The Wonderful World of Ohio. It is evidence of a point that Dr. Shoemaker mentioned: "you've got to get your governor behind you if you're going places." Our governor is really behind vocational education. He's behind vocational education more than he is behind guidance. We in guidance haven't communicated with him as effectively as have our friends in vocational education. This publication pictorially covers Ohio employment by industry group and gives good coverage to just about any activity that helps to make Ohio great. It's a beautiful publication.

I've missed several things like a series of sound film strips which we developed and are using as additional training information, and other things of this sort. What I have tried to do is to give you an idea of some of the things that can result from a significant financial investment and close cooperative relationships between guidance services and vocational education in their service to business, industry, schools, and youth.

UTILIZATION OF OCCUPATIONAL STUDIES WITH LEGISLATIVE BODIES

By Richard W. Howes
Assistant Director
Div. of Vocational Education
Connecticut Dept. of Education

1. New or Expanded Schools

Occupational studies are of considerable value in determining where new schools and facilities should be provided and what courses should be offered. In Connecticut, the Division of Vocational Education is required to make a six year projection of the new and expanded building needs. The strongest justification grows out of population studies and occupational studies.

Residential Schools

In a recent request from Congress, selected states were asked to supply Congressman Perkins with long range planning statements indicating the level of funding required for full vocational education development. A section of this projection from Connecticut dealt with the need for residential schools to serve several states; namely, (1) Northeastern States Institute for Environmental Control, (2) Eastern Seaboard Institute of Aviation and Aerospace Education, (3) New England Center for Vocational Education for the Deaf.

2. Course or Curriculum Changes

The administration must constantly examine the utilization of existing plants. Occupational changes may result in some trades becoming obsolete or developing occupations which should be given higher priority than programs already in operation. Occupational studies should reflect this and action should be based on such findings.

3. Operating Budgets

In all states, local and state budgets for vocational education programs must be justified. The operating budgets or the continuing expense budgets can be supported if current occupational studies reflect the immediate needs and long range needs of employers.

4. Equipment

The need for replacement and new types of equipment is a substantial item in the budget requests for vocational education programs.

Occupational studies which reflect changes in the type of work done which would, therefore, require special equipment, not previously required, are needed to provide the strongest justification.

5. Need for New Teachers and Changes in Teacher Education Curricula

States are required to submit annually a Projection of Program Activities for the coming fiscal year. An important section in this projection relates to the new programs and new vocational education teachers required. In gathering these data the program developers on the State staff must pool the information obtained from local and state studies. Changes in job materials and job processes change the curriculum and may have an effect on the training of teachers in such a case. The opening up of new occupational fields also creates a need to institute teacher education programs and attract teachers to the new and developing fields.

Graduate Follow-Up Surveys

In dealing with legislative bodies, the percentage of vocational education course graduates who are placed in employment is always an important figure. Graduate follow-up data are required in annual state reports to the U.S. Office of Education.

UTILIZATION OF OCCUPATIONAL ANALYSIS DATA

By Carl A. Heinz, Chief
Division of Occupational Analysis
and Career Information
U.S. Employment Service

What I want to talk about is my concern with developmental work in the occupational analysis field. Since this panel is concerned with the use and application of materials, I will try to turn my remarks in that direction as much as I can. Yesterday, in answering some of the questions, I did indicate to you the sources of our information which is of the job analysis type, that is, what workers do in the job, how they do it, why they do it and what's involved in their doing it. In other words what requirements do we impose on the worker to perform this job? In describing how we get this information through the cooperative resources of the State Employment Service activities, I indicated the dispersion of these resources so that we could get a broad sample of information to prepare the Dictionary and other publications. One thing that I did not mention in that regard is that in addition to actually going out and gathering the information, these State resources, which I will term developmental resources, also cooperate with us in preparing the various publications we issue, including the Dictionary. They write the definitions and they help us with various aspects of the job. Many of the things I'm going to talk about they have been concerned with.

Another area that I didn't mention, and that is in addition to these resources that we use in the developmental program, is what I will term operating staff which the State Employment Agencies have. They have job analysts or occupational analysts at the local level who can do the kind of job that Mr. Howes was referring to. Through your relations with the Employment Service, although the dispersion of these resources is spotty, your requests for services in this area might not only result in your getting what you want, but helping us to improve the amount and quality of resources that are available.

In connection with operations we have another source of information, the 282 Program, through which local office people have a say in getting new classifications into the Dictionary of Occupational Titles. You know, the more involved you get in the Dictionary itself the greater service it can be to you. Under this program you can call our attention to emerging occupations. It was this source that led to recognition of the need for development of job descriptions on occupations in the operating of automatic data processing systems. We recently turned out a description which relates to numerically controlled machines. I think that this also came to our attention through this source. I mention this both as a possible use or service that you might use, where you need new information, or want to get classifications that are not available, and also to indicate what it means to us.

I could not spend much time here in the few minutes that I have talking about how to use the Dictionary. I do want to make a few remarks about it to impress upon you that although you have been talking a great deal about materials that are going to become available in the future, the Dictionary is not in the future. Here we have an existing tool that will help you with many of the problems you have discussed, particularly the things that John Odgers talked about and that Mr. Howes talked about. You do have a source of occupational information which I think a great many educators are not making use of.

You know that recently we, in the Employment Service and the Office of Education, sent out a letter to our respective counterparts in the States, indicating that the Employment Service would provide training in the use of the Dictionary. To my knowledge only one area, the New England area, has taken advantage of this. It may be that other areas have and that we haven't gotten the report on it, but if you have not already done so, I urge you to utilize this resource to have your people become familiar with this document.

The document, in case you are not familiar with it, comes in two volumes. The first volume has descriptive information about jobs. We have attempted in this new edition to spell out the jobs in more detail than we did in previous editions of the Dictionary. The second part of the Dictionary is concerned with the classification structure that Mr. Odgers referred to. While I can't go into any detail about it, it does provide two arrangements of occupations. The first arrangement, that we call the occupational group arrangement, organizes jobs according to a field of work, for example, all the specific jobs that are concerned with carpentry, bricklaying, etc. The second arrangement of occupations, which is reflected by the last three digits of the six digit code number, organizes the occupations according to the worker trait requirements, that is the amount of general educational development that is required, the amount of specific vocational preparation that is required, the type of aptitudes that a worker should have, the type of interests that he should have, the type of temperament, the physical capacity, etc. These are organized so that within a group the occupations make similar demands of this type upon the worker. When you have a grouping of jobs referred to, such as carpentry, taking the last three digits and looking at the second arrangement you can see all of the other kinds of jobs that make similar demands.

If you become familiar with the Dictionary you can find many avenues in which jobs spread out in terms of their relationships. I think it's important that educators be familiar with this kind of information and I think it's important that we impart as much of this kind of information as we can to the students, because I think it's helpful to them in their future life to know something about these things. I think this is what John Odgers was stressing in his remarks.

We have heard about the clusters of occupations and the relations of the vocational education course classifications to occupations. The relationships within the Dictionary will enable you to extend your knowledge of occupations and the relationships to your vocational education courses. There is another aspect of this which I would like to touch on and that is with respect to gathering the economic type of information. You have heard from Murray Weitzman regarding the Census type data. I think you saw yesterday in what he said that they have a particular need, or certainly have had in the past, for a specific kind of classification and that you get the information in relatively broad groups, whereas the Dictionary permits you to get information about very specific occupational entities. I think also when Dr. Creamer referred to the Standard Industrial Classification he also implied the need for a Standard Occupational Classification. I'd like to touch on that.

If you go back to the time when the Employment Service was organized, the only occupational data that was available was that which came through the Census of Population. There was very little other information available. This was one of the first needs of the Employment Service. Recognizing this, they started work on the Dictionary, but also recognizing the need that there be some commonality in the classification structure, an overall group was set up in the government to establish this kind of commonality. Perhaps at that point they were looking toward a Standard Occupational Classification System. The American Statistical Association and the Bureau of the Budget organized a committee on which there were various government representatives. The purpose was to keep some commonality among the occupational classifications. The Census classification and the Employment Service, or Dictionary, classifications had to be different because of the different purposes to which they were directed. Effort was made to keep them as comparable as we possibly could, so that as the Dictionary was structured a subcommittee was set up to examine every specific item in the Census index alongside of every item that went into the Dictionary, or vice versa, in order to get the jobs allocated as far as possible to the same grouping arrangement. Throughout all these years this operating committee, while it is no longer sponsored by the American Statistical Association, has kept these two systems somewhat in line. One has borrowed from the other - the Census Bureau has used the Dictionary information to improve its classifications, and we, likewise have done the same. Currently, this committee is deeply concerned with trying to establish a Standard Occupational Classification System. Again, as part of the project we have made comparisons, item by item, between the Dictionary and the Census. It is almost complete. The Census at the present time is making a final check of the relationships and as soon as it is finished we will be able to prepare tables for publication which will show the Census groups, and the specific items in the Dictionary that go into those Census groups, and the reverse of that. I think this will be a tool for economists who provide you with the kind of information you need, a tool for you in interpreting this kind of information. This simply shows the one to one relationship. The Census Bureau does not know, of course, how many people report on a specific title, so the shifting of a title from one group to another may make a significant difference or may make an insignificant difference.

We have also, jointly with them and the other members of the committee, taken the October 1966 Census of Population Survey and have coded some 50,000 items in the survey according to both the Census classification and the Dictionary classification, the full nine digits. This is finished and waiting to go on ADP processing. When this is done we will have a distribution of this Census Population survey, item by item, which will give us some rough indication of the distribution by percentage of respondents between the Dictionary and Census groups, and vice versa, so we can get some notion as to what the dispersion of returns is.

I mentioned some of the publications which we turn out on a national basis. By keeping in touch with the Employment Service I think you can keep up to date with the kind of material which is available. I would like to call your attention to the fact that State agencies also turn out various kinds of information slanted toward the local level which is more pertinent to your usage. It has some of the information that one of the speakers referred to as needed, that is how you get into the occupation, how you progress in it, where the opportunities are, and this kind of information.

I'd like to call your attention to two items. I might say that because of the great interest in serving the disadvantaged population that much of the work is going toward providing information which will help in counseling and providing information to the disadvantaged individual. This California booklet I think is one of the most outstanding pieces of work in this area, particularly for the disadvantaged. It has a very simple format with little line sketches of the worker on the job and brief descriptions of what the worker does. It also has something about the beginning pay, hours of work and other facts which are of interest to the worker. These were prepared by the California State Agency and I call them to your attention because the only information we have about how useful they are is the usefulness of them in the school system in California. We cannot point out whether they are of any value within the Employment Service so far.

I think John Odgers might have referred to the booklet done in New York State by the Employment Service on contract with the educational group up there. It was financed with HEW money. They prepared 200 of these in this series. It covers such things as job duties, working environment, fringe benefits, earnings, future demand, advancement opportunities, disadvantages, aptitudes, interests, temperaments, physical requirements, education, location of jobs, schools, cost of education and entry, and related occupations, of course very briefly, with indications as to where they can get more information. I understand that this is being used experimentally in a number of schools in New York State. We hope to get copies to distribute to all State Employment Service agencies so that they can have this as a guide to doing similar work there.

COORDINATION IN OBTAINING MANPOWER DATA - THE ROLE OF THE STATE DEPARTMENT OF EDUCATION

By Herbert Righthand
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The State Department of Education is chiefly a consumer rather than a producer of data. Our manpower studies have a rather broad definition. They are designed to give us data that will help us do something whether it be to build a school, to add a new course, to change a curriculum, to get information for the guidance staff, or to get information for the placement staff. These are just some of the objectives of manpower studies. If you go over these you will find that knowing how many people are needed in occupation A, and how many are needed five years from now and ten years from now, is very vital, but it is not enough. It is therefore necessary to talk about coordination in two aspects, one is coordination of agencies, the other is coordination of data. Someone has to put these various data together.

In the area of coordination of agencies I refer to the role of the State Department of Education through the Research Coordinating Unit. In Connecticut, in Florida, in Illinois, I believe in New York and some other States, the Research Coordinating Units are usually part of the State Department of Education. In other States this is not so. In order to coordinate agency efforts first we must set a reason for a study. Why do we want a manpower study? I've already given you five items: new school, new course, curriculum change, guidance information, placement information. Don't take these as the only ones. Even in the recruitment of personnel, manpower information is vital. There are three other aspects to be considered: 1. the limits of the study, 2. the content, and 3. who does the study.

Going back to the limits of the study, we in vocational education will generally set the limits depending upon what our interests are. It may be a geographic one - we are interested in the need for auto body workers in Windham County. It may be an occupational field - we are interested in the opportunities that exist in the field of graphic arts. It may be a study of educational level - we are interested in what community colleges can do in the preparation of business people other than the duplication of the high school program. What opportunities are there for post secondary business ed occupational graduates? This is the role as I see it of the State Department of Education.

The content. What should be in the questionnaire or in the study? 1. The number employed. 2. Present vacancies. 3. Projection of replacement needs for a two year, five year, ten year period, whatever you're shooting at. 4. Projection of expansion needs - two, five, ten years. What I'm giving you is the usual format of a narrow (but still broader than what we've been able to get) approach to a manpower study. I have another one - annual needs. For the Education Department it is important to convert these needs to annual need so you can set up a program where you will have a certain input. You are going to have a certain output and the idea is to determine whether our output is meeting the annual needs of the industry or the State.

That isn't all - the job requirements. It was touched upon previously. The physical requirements, the personality qualifications, the academic course content. It isn't enough for a job analysis to say you must be good in mathematics - it must say what kind of mathematics, adding fractions or algebra or calculus. Educational level, I separate academic content and educational level for this reason (I know there are community college people here who may not agree with me) there are some jobs in which, because of maturity or status, they will want a graduate of a community college, and not because of academic content; for example secretaries, etc. I'm not saying this is always so. But there are other jobs where the additional learning that the two year college gives is essential. It is important to know about educational level. For instance, in certain fields of teacher aides, you can see the controversy. We are told on the one hand that as a teacher aide, nursery aide, they don't want a high school graduate since they are too young, too immature. On the other hand we have the contradiction that the Stamford area home economics program is placing these 17 and 18 year old graduates in nursery schools. So it is important to know this kind of information - what is the academic level requirement. Frequently the level of training and competence will coincide, sometimes not necessarily so.

How about equipment used? In a study which Dave Pinsky is currently conducting, a study of graphic arts in the State of Connecticut, he is also including a study of equipment being used now, as well as whatever information the people in the field of graphic arts have about innovative equipment. Let's not equip a printing shop with equipment that seems to be on its way out. So this becomes part of a manpower study.

Hiring practices. If we're going to set up a program it is important for us to know if these jobs are filled through the Employment Service generally, through their own personnel office or through labor unions. Are they apprenticeable occupations? Just what is the general procedure? As we set up our programs this should be known. It is necessary to ask the employer concerning his source of manpower, and how he recruits them.

The entry salary. That's an extremely important one. We had a meeting with a group representing a motel and restaurant association who were indicating to us in the field of education the acute needs that exist in their area, which we know is true, and asking us could we provide programs for training people. Present at this meeting was a representative of the union. I think he put it rather bluntly, but perhaps it's true. He said, "Why are you worried about training? You're not going to get anybody to train at the salaries you pay." It is important to know if we can recruit people. We can train people but will they come and will they be interested in this level of employment? That is item 3, content, and I think the educational agency has to determine this.

There are manpower studies being conducted by the Labor Department and other agencies for other reasons and of course they call the shots there, but since this is a conference around education and the use that education can make of manpower studies, I'm identifying some of the uses.

Now the question of who does it. I put first in priority the Department of Labor. I put them first because of their advantages, their expertise and the broadness of their organizational structure. They cover a State. It is easy by working from their central office to gather information throughout the State. I also put this - maybe it's insulting to them, but they're cheap - we don't have to pay. We have to consider this, this is important. There are limitations. The limitations are changing. There were periods when they couldn't do the things that we asked them for. They were not allowed to do these things. There was a period when projections could not be made too far ahead because of some sad experiences in the '30's, but they are changing this. Now they still have limitations, they have limitations of money, they have limitations of personnel, etc., but this represents a good source of information.

Secondly, I have universities. I put the word expertise there with a question mark. It depends on the university. We're lucky we have Dave here who came from the Labor Department. He can bring the knowledge that he obtained in the Labor Department as well as having, and here are some real advantages, the freedom of operation that a university can offer and the additional facilities that a university can provide. When I say "universities" you just can't walk into any kind of university and expect to have this kind of study made. Universities and colleges can do manpower studies.

Private concerns. I have them listed. I've had no experience with them. We've not worked with them in this State particularly. Again funds represent a problem which, incidentally, is a problem in working with universities who like to get their overhead costs in and like to pay for a lot of other things while they are doing these studies. We're finding this difficult and maybe this will force an even closer relationship between this Department and the Labor Department to get certain studies done.

Last, I've saved the State Department itself. I agree with Mr. Neubauer who spoke here on Tuesday that the primary function of a Research Coordinating Unit is coordination. We can't in Connecticut, with a staff of two, conduct any really extensive manpower studies. We do go through the statistics we have. We do obtain some valuable information but it is extremely difficult to do surveys. On the other hand, we cannot help getting involved in various situations. First of all because of our State structure of vocational technical schools operated by the State, our close relationship with industry and our advisory committees, we often are more familiar with needs, especially relative to emerging occupations, than any agency, because we are getting this directly from the people who are employed and the employers. We can move fast. A specific study I'll mention is the Auto Body Workers Study in Windham. We needed this information in a hurry so we just went through the classified and picked up every auto body maker there. We contacted every one of them, found their need, developed projections, etc. Perhaps it won't stand up to the sophisticated studies that may be coming out of Washington but it met our needs. These are some of the advantages.

Let me give you as an example a technician study we conducted in 1963 with ten year projections. This was probably one of the cheapest studies we ever did. It involved a 100 percent sample (except where we were just turned away from the door) of every industry with a population of 50 or more in a technical field. We eliminated hospitals. We eliminated food services. We were interested in the engineering aide primarily. The employer was contacted by personal interview. We used our teaching staff in our technical colleges to do this. One very valuable side effect was the fact that we got to know these companies. These visits from the instructors or the directors or the presidents of the technical colleges established a relationship that exists now. These men who were doing the interviews were engineers. There would be a discussion about content, of course, about what is the difference between tool technology and mechanical technology. It was possible to give definitions, on-the-spot definitions, of these technician titles. This is another example of where it may be expedient for a State agency to do its own study.

We have special groups and we have to be careful of special groups. I recall a situation of upholsterers clamoring that we should have a program of training in upholstery. They wrote letters to the Commissioner and so on, until finally we got all the upholsterers we could pull together in the whole area and had a meeting with them. We just went along asking, "How many do you need? How many do you need?" It ended up with about eight people. You can't get them. We asked, "What would happen if we got you the eight? What would you need next year?" They said, "We'd be all set except if someone retired or quit." We cannot set up a continuous type of program on that basis. We can do this through an adult education or a manpower crash program, but we can't set up a continuous program that will turn out eight graduates a year forever and ever. Is this a study? Technically it is. It didn't go any further. There was no need for it to go any further. I don't think any State Department of Education can just wash its hands of the whole problem of manpower studies.

Part of working with agencies is the question of what do you do with the information. There is information in records in Washington. There is information obtained in studies that are being done, but what do you do with it when you have it? The practice with some research studies is you put them on the shelf. That's where they end up. The State Department of Education has the responsibility of seeing that these studies get to the people who can use them. There's the coordinating aspect of agencies. We will distribute our studies first to our vocational staff, State staff, local staff, directors of guidance, and all head counselors in the State. We cannot afford all counselors, but there isn't any town that doesn't have a director of guidance or head counselor that doesn't get every manpower study that we do, or the Labor Department does, or any study that anyone does that we have access to. If it is something that is done entirely out of our hands, we will still identify it and put it in our newsletter, which every director of guidance or head counselor gets, to tell him this is available. School superintendents, special interest groups, and legislators also get these.

Coordination of data. I think with all of the items I have identified before as content, you are still not ready to do anything. The manpower study phase may have been completed but the question is whether this manpower study itself is completed. We must consider the student interest factor. It's very important to have this information, and here is a concrete example. There is an acute need for sheet metal workers which can be substantiated over and over again, but the fact that kids don't want to go into sheet metal and we can't get them to enroll is another problem. How do we find this out? These are studies that we do. We had to close down one sheet metal shop in one of our schools in an area that needs sheet metal workers. So when we are doing a study in terms of new school construction we do a manpower study, a student manpower study. Sure it's easy to predict how many kids you'll have in the tenth grade, eleventh grade, twelfth grade. How many of these kids will want to go to your school? How many of these kids will want to take this particular course? So there's a whole area of needed development.

Collecting data for the development of curriculum. The job description, can be converted into what are the essential skills and what is the essential theory and what is the related knowledge. This is another step in the process. Equipment and facility information should come direct from the study. If this is a new field, a field in which you have had no program; for instance, the training of inhalation therapists, what do you need? One room? Two rooms? A laboratory? What kind of a laboratory? What facilities? And so on. All this has to be investigated, very frequently after the manpower study is over.

The area of cooperative work experience. There is an acute need for a certain kind of occupation. What is the best way of training these people? Through a shop? A laboratory? In school only? Through a work experience program combined with a shop or laboratory? Is work experience essential? It's always desirable, I assume, but is it essential? In some areas, the health field for example, the clinical experience is essential for employment. How is this data obtained? The manpower studies you've heard about don't go into this aspect. Educators have to explore this. Then, I think it is the responsibility of the State Department of Education to look at all of the data that's available and say "We have everything but - - ". It is their responsibility to say, "We need this additional information." It is their responsibility to see that it is done by someone or by themselves.

I've tried to describe the role of the State Department of Education and its coordinating aspects, it is coordinating agencies, it is coordinating people and it is coordinating facts. To the extent that it is able to do a good job of coordination, to that extent the State Department of Education and the local institutions can meet the needs of youth.

COORDINATION IN OBTAINING MANPOWER DATA - CAMPS

By Francis Woods, Manpower Coordinator
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In order to understand CAMPS properly you can't take it out of context. You have to know how it arrived, why it's here, and then from there what's happening within CAMPS, and what they hope to do with it. Very briefly, you're familiar with these facts as well as I am, I'm sure, but I think we should set the stage. We know that back in 1961 as a result of one of the task forces that President Kennedy had appointed, there came into existence the Area Redevelopment Act. Essentially this was to help in those areas that had six percent or more of unemployment. The purpose behind this was to help people get retrained and go back to work. This was followed up with the Manpower Development & Training Act of 1962 which was much broader and much more liberal than the Area Redevelopment Act.

Really before this thing had a chance to get off the ground, get operative and show that it could or could not do what it was intended to, we had a tremendous proliferation of federal activity. Congress just began passing acts following President Kennedy's assassination and we had the outpouring of federal money like it was going out of style. You can tick off the acts as well as I. We had the Economic Opportunity Act, the Vocational Education Act and the various titles within these acts and others which allowed about everybody to do everything.

It wasn't long before the good people in Washington came to the conclusion that something had to be done, because in addition to the two main departments that had been initially involved, that was the Labor Department and the Department of HEW, you had this new agency OEO, and as a result of the other acts you had over 25 federal agencies involved in one way or another with training. They say that there are now on the books some 50 separate pieces of federal legislation which provide money for training. So you can see that there are a lot of people doing a lot of things and in many areas they are trying to do the same things for the same people. In many areas they are trying to do the same things for the same people who aren't there. So the good people down there finally realized it was time that we got together and did something about this.

The first effort started in April of 1966 when they came out with what they called then the National State Manpower Development Planning System. The purpose of this initial thrust was to get all of the agencies, at least the prime agencies who were involved in the use of federal funds for training, to sit down and cooperatively plan what they were going to do for the coming year. It was a very late start for the '67 year. By the time the directives came down and we knew what they wanted, at least we thought we knew what Washington wanted, we came up with what was thought to be a good plan but which we now recognize was really a hodgepodge. In Connecticut this resulted in the document, "The State of Connecticut National State Manpower Planning System, 1967." Even before this document was approved it was worthless because it just wasn't going to work. It didn't. I think Washington recognized this almost immediately. So the result was that they immediately shelved this National State Manpower Development Planning System and in March of '67 came up with what is now known as the Cooperative Area Manpower System or CAMPS.

What's the purpose of CAMPS? The stated purpose is to get the local people who are going to do this thing, these people who have this responsibility, these people who get these funds, to sit down and analyze the data. First of all in terms of resources - what is it they have in terms of training facilities? What can they do if they use these facilities to the maximum? Then in terms of funds - how much money do you actually have from local, State and Federal government? And are you serving the same people? Sit down and think about this and plan intelligently and then in terms of that, take this information and these data and come up with what you hope will be the best plan to meet the needs of your area.

This information then is supposedly fed to the State level where there is another CAMPS committee made up again of similar people, but at the State level, who then pass judgment upon the plan submitted. This thing goes on to a Regional Committee. Initially when this was set up, we had 11 Regional CAMPS advisory committees. This was in line with the regional setup of the Bureau of Employment Service. Since that time, as a result of consolidation and reorganization, it has been reduced to seven. Primarily the purpose was to have people not just go off on their own and say, "We can do this. Never mind what anybody else is doing," but to have them sit down and talk about what can be done in terms of maximum utilization of resources available.

What have been some of the problems that CAMPS has had to face? What are some of the problems today in terms of the data and the effective and intelligent use of these data, and these resources that are continually gathered? I am sure that many of these aspects will be familiar to you as a result of your own planning and experiences.

First of all, the most important element that we are concerned with is time. We usually get the notice on what we are to do for the coming year three or four months before the year begins. This year, for example, in planning for fiscal year '69, we got our first issuance in February. I suppose we could have started with that, but it really didn't tell you an awful lot. What it did say was "Look out for #2, it's coming very soon." Number 2 came about two and one half months later. Then we had about two and one half months to plan a whole year's program for 1969. So time is a very important element. They say with the school budget the minute that you get yours approved that's when you start planning the next one. I think this is what we should do if CAMPS is going to work. The minute we get it approved we should start thinking of the next one. We haven't done this yet.

The next important problem is staff. This past year for the first time we were told that staff would be available, and staff has appeared, but this staff is domiciled within the Labor Department and it is not now available to all the agencies on a full time basis. In some instances this staff has other responsibilities. I think until such time as we can get adequate staff who have this as their prime responsibility, we are not going to lick this problem of gathering the data, getting it in on time, revising it and finishing up with a polished plan.

Another very difficult problem that we're running into at the local level, is the lack of communication by the agencies involved with their local counterparts. Let's say, for example, we get a notice that in the coming year Rehab is going to do this, that or the other thing, therefore we are advised to set up our plans accordingly. The local groups get together and the representative of Rehab comes in and sits down with them to plan, however they know little or nothing about what they are supposed to do because they haven't been informed. That isn't true just of Rehab. I'm using that only as an example. We find that in many instances we get notices from our regional office weeks after Labor has had their counter notice. The whole problem of communications has to be licked or we're not going to solve this problem.

I think, too, that in this planning there has been too much reliance on Washington. I think we have a tendency to wait for these issuances, these directives that come down and say, "Now look, in the coming year 65 percent of your people must be in the age bracket, 19 through 35. They must be from indigenous areas that have these sorts of characteristics: so many of them must be blacks, so many of them must be non-whites, so many must be this, so many must be that . . . ." From a national standpoint I suppose this is fine, but you know and I know that every State and every region within that State doesn't fall within those guidelines. The point is we too frequently wait for this. On top of that, the type of issuances that come down, the directives that come down, we think, are becoming a little bit too restrictive. They are trying to pinpoint much too finely what it is you're going to do. At the present time, and I think this is significant, the only program within CAMPS which has to spell out in advance by Labor Market Area, by skills and by people, also by dollars and cents, exactly what it is they are going to do is MDTA.

This is another problem that we face. Many of the other agencies still come in and say, "Well, we really don't know because we don't know the people we have to serve," or "We never know who's going to come in the door," or "We don't know for sure the type of service we're going to have to provide." So maybe this is the problem that they have in gathering the data or maybe they already have the data but they don't know how to dig it out.

Finally, one of the other problems that continually upsets us in trying to work with CAMPS is this misunderstanding of the role of CAMPS and the committees at the local level. CAMPS was set up primarily as an information gathering and sharing situation. It was set up to have people involved with training utilizing federal funds sit down and plan intelligently. It was not set up primarily to set policy. You find in too many instances that these local committees feel that they are going to set policy not only for their own area but for the whole State as well. This has resulted in some misunderstanding and harsh statements being made.

Overall, though, I think that in accordance with the statement that was made in a report of the Secretary of HEW, it's an attempt, it's a recognition that this tremendous proliferation of federal programs with so many people involved needs some sort of guideline. I think instead of just going out and pulling back the reins and strings on all of these things, we're trying to do this somehow or other in a coordinated, cooperative fashion, with the hope that reasonably intelligent people will sit down and recognize their responsibilities and carry them out. The difficulty, of course, lies with the oft-quoted statement that in spite of this coordinated effort, in spite of the many directives that come down to us from Washington, the responsibility rests with the funded agency. So, in effect, despite the many things that are said, despite the many fine platitudes that we hear, each agency, having said that it will cooperate, really can go out and still do as it pleases. My own personal opinion is that until they give one agency enough strength to make this thing work, it isn't going to. Yet after all the things that I've said about CAMPS today, one way or another, it's got to work.

COORDINATION IN OBTAINING AND UTILIZING MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATIONAL PLANNING

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Any discussion of the collection, analysis, and utilization of manpower data for vocational-technical educational planning must first address itself to the basic goals of vocational-technical education itself. At the most elementary level we can say that the goal of vocational-technical is to meet the needs of the industrial community — to provide a skilled and adaptable labor force for employers, and to give workers marketable skills. In short, the goal of vocational-technical education is to assist in the process of allocating manpower through the development of skills which have an economic value in the production process.

But this definition is only sufficient as a first approximation. Not all workers hired by employers are supplied by vocational education institutions, and not all skills are acquired by workers through formal vocational training programs and institutions.

Effective vocational-technical educational planning involves choice among alternative occupational training programs; it involves an evaluation of capabilities and capacities of trainees; and it involves a very complex matching process between occupations and workers.

The collection of manpower data and its utilization must address itself to questions of:

(1) What jobs do we train people for, and how do we establish priorities among competing shortage areas;

(2) How do we predict the capability of a worker for training and suitability for a particular occupation;

(3) How can we match people and jobs most effectively.

To answer these questions for the vocational-technical educator and planner, we need better manpower data. To obtain and utilize manpower data we need more effective coordination among disciplines within the academic community, and also between the academic community and action-agencies responsible for carrying out programs in manpower and related fields.

The economist conceives the training process as essentially the development of latent capacities into marketable skills, and the movement of workers upward toward higher levels of "resource-value" utilization. Human skills represent an accumulation and continuous development of "human capital." Vocational-technical education is, therefore, an investment process in a very real sense.

To answer the first question: "What jobs do we train people for and how do we establish priorities among competing shortage areas," the economist would say that from the conceptual point of view you should train people in those occupations in which you have the greatest anticipated ratio of lifetime earnings (discounted to the present) to training costs for an individual worker. Assuming that we could develop good data on lifetime earnings and training costs, an economist could then give a fairly precise analysis of what the "shortage" occupations are, and what vocational educators should be training people for. The economist's prescription would be: "Train workers for the jobs which give the highest return to investment after taking account of future income returns (benefits) and costs of training in achieving higher income levels. If data were available an economist would calculate a series of alternative rates of return for occupations and suggest the best payoffs to vocational education planners.

The above procedure might be adequate for the demand side of the equation, but each individual is not a homogeneous and interchangeable piece of raw material. There are individual differences which affect training costs, and selection of occupations early in one's career affects future income levels and occupational progression in a very profound manner.

It is the psychologist's task to learn more about the process of occupational choice, including all aspects of individual and environmental conditions which influence motivation, the learning process, and all aspects of decisionmaking in occupational choice. Where the economist attempts to shed light upon the demand side of manpower, the psychologist (and possibly the sociologist) attempts to give us further information on the supply side of manpower.

In a dynamic industrial society changes in technology, new products, and changing work methods alter the skill requirements of occupations almost on a continuous basis. Occupational obsolescence destroys jobs, and alters the skill content of existing jobs. The industrial engineer's task is to suggest to business management more efficient methods for utilizing manpower at work, for restructuring old jobs, and also creating new jobs or skill areas. In addition, the industrial engineer is in a position to provide information to vocational education planners which would insure that training and curriculum content are realistically adapted to the changing needs of industry.

The roles of the economist, psychologist, and industrial engineer (and the information that is generated from these disciplines) support the work of the vocational educator. The educator must make the essential decisions of:

(1) Establishment of a system of priorities to determine occupations in which training will take place;

(2) Translation of job and skill requirements into curriculum planning;

(3) Occupational and vocational development and planning in bridging industry's manpower needs with the needs of trainees.

Coordination in obtaining and utilizing meaningful manpower data involves teamwork among the various academic disciplines. The essential nature of this teamwork is the comparative advantage that each discipline has in contributing to the employability and adaptability of the trainee in the production process.

There has been much written and discussed about the necessity for "coordination" in the manpower field, but with little specification of what goals coordination is to achieve, and at what cost. Conceptually we are seeking to maximize employability through vocational education. This can be quantified in a conceptual sense by discounting the lifetime anticipated income of a trainee and subtracting lifetime income which would have been received without vocational education. A summation of all trainees' income gives us the "output" of our vocational education "plant." If we can achieve a given level of employability or "lifetime income" within the vocational education system at lower cost by involving numerous disciplines and agencies it pays us to "coordinate" (or maximize returns per given unit of cost). The law of diminishing returns comes into play at a certain point, and each additional discipline or group adds less and less to employability after a certain point, costs tend to rise rapidly as organizations and disciplines begin to adopt "subgoals" which contribute little to employability in terms of costs expended. In other words, the system becomes inefficient and unwieldy.

It is at this point that new and competing disciplines and organizations emerge to challenge established disciplines and organizations which are too powerful to abolish, but inefficient in carrying out new goals desired by society, or even old goals previously followed.

The above has been limited to a conceptual and theoretical framework for coordination of disciplines and agencies in supporting the goals of vocational education.

In Iowa, a number of coordinated activities have emerged to support and assist vocational educators in their responsibilities. This is not to suggest that other states do not have more fully developed programs in coordination, or that Iowa's is necessarily superior to other states. Iowa's experience is presented as illustrative of coordination mechanism.

Iowa's major manpower problems include the displacement of labor in direct farming, the movement of population from rural to urban areas, and the emergence of a significant manufacturing economy. Movement of labor is particularly heavy among youth, with an annual estimated net out-migration of about 20,000 per year.

To meet Iowa's manpower problems, the legislature established an

Area Vocational and Community College system in 1965. Iowa was divided into 16 districts, each of which defined an area served by an area vocational school.

One of the most critical problems was the basic choice of suitable occupations for vocational education. Information was needed on long-range manpower needs, as well as immediate needs of Iowa industry. In addition, vital information was needed on how skill content of jobs was changing our time.

As a first step in coordination, an inter-agency "Manpower and Job Information Committee" was established to provide general guidance to vocational schools on emerging manpower needs. This is an informal committee composed of representatives from the:

(1) Department of Public Instruction (Research Coordinating Unit)

(2) State Employment Security Commission

(3) Manpower Development Council - Office of Economic Opportunity

(4) Iowa Development Commission

(5) Industrial Relations Center, Iowa State University

(6) Center for Industrial Research and Service, Iowa State University

Included on an ad hoc basis are various officials of Area Vocational Schools who participate in the discussions of this group. The purpose of this committee is to integrate the state's activities in industrial development, job placement, and economic opportunity, with vocational education.

Within the Industrial Relations Center at Iowa State University an "Occupational Employment Forecasting Unit" has been established to provide better data for vocational schools, as well as guidance counselors in high school. A publication has been completed by Mrs. Catherine Palomba of our staff which provides estimates of Iowa's manpower needs for 1975. There have been other studies in this area, but this is the first report which has been completed within the context of nationwide economic developments. The basic methodology used was developed by the U.S. Bureau of Labor Statistics in its publication Tomorrow's Manpower Needs. Thus estimates for Iowa are comparable and consistent with national estimates. A second study is now being conducted which will provide estimates on a multi-state regional basis.

Long-range forecasts are useful for long-range vocational education planning purposes, but for current programs we are interested in where we can place our graduates today. We are also interested in having information on wages paid for various occupations.

To implement our short-run manpower studies the Industrial Relations Center has been conducting a job vacancy survey of manufacturing establishments in Iowa on a six-month basis. To date 3 studies have been completed, and a fourth is in final process of completion. As in the long-range forecasts outlined above, we have received excellent cooperation from the U.S. Department of Labor. We are planning to apply a formula developed to expand our survey returns so that more accurate estimates of the universe can be reported for Iowa.

Job vacancy data for manufacturing has been reported by industry, occupation, county, and on a multi-county basis. Also included are average wage rates for each occupation on a county basis.

Feedback received from vocational educators on our manpower studies has indicated that while quantitative estimates are useful, educators are also interested in how skill requirements for jobs are changing. It is not enough to know how many toolmakers will be needed in 1975. One must also know how toolmaker skills are evolving in order to provide for curriculum changes.

A beginning has been made in this area through the initiation of a job content study of year-round farm jobs in large commercial farms in Iowa. One goal of this study is to identify the actual tasks performed on these jobs, so that better training programs can be developed. The large commercial farms are the prototype of future farming operations in Iowa. These pay relatively high wages, provide year-round employment, and are difficult to fill in spite of general labor displacement in farming.

Collection and development of manpower data does not guarantee that it will be used by those responsible for vocational education programs. The gap between the "world of work" and the "world of education" must be bridged.

Again, using the Iowa experience to illustrate one way of closing the gap, our Industrial Relations Center has sponsored conferences in special cases to generate change, or to promote training in an area of critical need. In October 1966 a "Human Resources Conference" was sponsored at Iowa State University to explore barriers to training. Involved in this conference were state officials, county extension agents, and educators.

Our long-range forecasts, as well as national trends, indicated considerable shortages of workers in the health occupations. On March 13-14, 1968 a health manpower conference was conducted jointly by the University of Iowa, Iowa State University, and the State Department of Public Instruction. This meeting was attended by area vocational school representatives, health manpower officials, health association representatives and university research personnel. One mission of this conference was to bring together educators and health officials to explore the development and extension of health occupations training in area vocational schools.

These examples are illustrative of ways in which a university research center can develop manpower data, assist in its implementation through workshops and conferences, and for the future, followup evaluation. There are many aspects of research that we have not as yet developed, but hope to establish in the future. The most critical would be studies of changes in job content, research on internal rates of return for occupations, and most importantly the development of a system for evaluating the effectiveness of vocational education in meeting manpower needs.

The above discussion fits a model in which all individuals and segments of society have equal access to educational opportunities. This is obviously an unrealistic assumption in a society in which there is discrimination on the basis of race, color, creed, and sex, and one in which poverty and unequal distribution of income tend to be passed down from one generation to another. In a world of discrimination and inequality of opportunity it becomes a fruitless exercise to develop models of cost/benefit or to calculate rates of return to educational costs. Irrespective of whether expenditures can be justified in an economic sense, I would argue that as long as artificial barriers exist in society in education and employment opportunity, heavy expenditures are not only justified but are mandatory. Economic arguments must stand aside temporarily for more fundamental legal, political, and philosophical criteria of what most of us consider to be the main attributes of a democratic society.

COORDINATION IN OBTAINING MANPOWER DATA ON THE FEDERAL LEVEL

By Harold Duis
Service Program Officer
U.S. Office of Education

A word of background, the Vocational Education Act of 1963 mandated a meshing of manpower data and training. Congress spelled out in this legislation the fact that there was to be close cooperation between agencies having an interest in manpower and those having an interest in training. This legislation, as you know, was passed at the time when the federal manpower policy was developing which recognized the use of human labor as an economic resource, that is, each person is either an economic asset or an economic liability. At the same time, because of technological advancements, there have been created a number of problems; and we have developed a large pocket of poverty because of the fact that we needed higher skill people and the resources were lower skill people. The truth of the matter is that vocational education probably had not met the need, had not done its job - that is the traditional vocational education program - largely because of lack of resources.

There was great interest developed in vocational education and pressure groups of all sorts demanded that more be done. Congress reacted in a piecemeal way to these pressures and passed all kinds of legislation and handed these out generally to whatever agency yelled the loudest or to where they thought it might peak. Consequently, we had a great number of band-aid type programs, a great number of remedial type programs, to actually correct the deficiency that we in vocational education were responsible for. At the same time, had we previously had the funding and had the interest that we now have, many of these band-aid type programs would not have been needed. As a result a great number of agencies became involved in training, in a broad sense, in education.

The Bureau of the Budget analysis document that I saw recently showed that in the year 1967 there were some $8.4 billion to be spent for education and training of all types, and of this amount $3.8 billion, or about 45 percent, was administered by the HEW. The Defense Department was the second largest one. All except one of the eleven Cabinet Departments are participating in these various types of programs, in addition to 15 other agencies. This means lots of agencies and organizations are involved. Cooperation in a situation like this is not easy. First of all, there are too many agencies; second, it is difficult for equals to coordinate equals. Agencies all like to guard their own respective jurisdictions. Outside interest groups, of course, are concerned about certain agencies and will not stand for some things that have been happening. Then there is a certain amount of competition for the control of a program as has been pointed out earlier. This, of course, is good as it has the result of many innovations and pressures upon traditional programs.

Actually the coordination at the national level has not been highly effective. This has been recognized by at least two recent actions. First of all, the Ad Hoc Vocational Education Council, which for the past year has been studying vocational education as I indicated to you yesterday, came out with one of their recommendations which was to have a unified agency at the Executive level to be responsible for all educational and training programs. This is one possibility. In another recent development, Congress in the last Appropriations Act last year appropriated $150,000 for a study of all of the federal agencies to see how much overlap and waste and duplication there was. This report is now out. It has been completed but there are no particular drastic recommendations I know of that came out of that study. The State Director of Vocational Education in Wisconsin was on that particular national committee.

On the other hand there have been some efforts made with some success. Most of these have been Ad Hoc type arrangements between agencies. The most significant of these, as far as concerns us, is our joint liason committee between the Office of Education and the Bureau of Employment Security. This is my committee and it has been in operation since 1964. We didn't meet in the past two years, but almost monthly two joint statements from the two agencies have gone out to the States with regard to instructions implementing cooperation at the State level. Other activities that have already been discussed here that we have jointly been involved in are the OE Code - DOT Conversion proposition and Projected Program Activities. In addition, many research proposals are reviewed jointly. We've spent time working with the RCU units, and in many other activities in which the joint efforts of the committee have resulted in some of the developments you have seen in the States. Another example is the fact that we have tried to encourage DOT training sessions to be conducted by the Regions, and as I said yesterday, Region I has been active in that. Beyond that, our staff members are involved in numerous committees in various joint projects.

Probably one of the largest efforts to date in coordinating manpower data is the CAMPS program which has already been mentioned. Others I'll mention - the Office of Education has, for a number of years, had joint committees with USDA in the field of agriculture and the area of home economics. Health agencies, probably, have done more cooperating than any others. I don't know whether the results have been as good, certainly the Health agencies have a tremendous number of committees and the people from our staff seem to be attending these committee meetings most of the time.

Then there are several joint projects that have been in operation. One that has been going for a couple of years is the Health Survey that we've been engaged in with the various other Health agencies. Just recently there was launched a study of the agricultural occupations and the various types of nonfarm agricultural occupations that are emerging. Four

Departments are cooperating in this with HEW, the Department of Labor, the Department of Agriculture and the Department of Commerce participating. Then, of course, there are activities like institutes that are jointly sponsored. This summer we have two sponsored by the Department of Commerce dealing with sewage disposal. We've had sessions for training of urban planners with HUD, training of workers in housing developments, etc.

Similarly, our office is in communication with probably several hundred trade organizations and associations. We have a person on our staff whose job is largely working with these organizations, that is, organizations like the National Restaurant Association, Chamber of Commerce, National Florists Association, Feed & Grain Dealers, American Nurses' Association, etc. These organizations have a tremendous input into manpower data. Their information is valuable particularly if they indicate to us training needs and job requirements. Many of these have resulted in curriculum guides being developed in our office.

I think there are a few other efforts within the Office of Education itself which may be of significance. We do have the Center for National Educational Statistics. This center has been in operation six years and is making an effort, particularly in the Office of Education, to standardize data collection, etc. This is tremendously important even within the Office of Education where there are so many different programs. They are constantly working with other agencies so that there will be some standard terminology and interpretation of data. I think that the OE Code that has recently been developed as Handbook #6 will have a very definite coordinating effect, and that this effect will go beyond the Office of Education to other agencies as well.

I think that the real job of coordination is probably on the State and local level. This is where the problem really is and this is where the program actually operates. In any case I think there is a need for compilation of data at the National level. I suggest that the data on manpower needs, etc., be the responsibility of the Employment Services of Employment Security; and I suggest that, as far as possible, the training output for vocational education particularly, and as much as possible, for other sections both public and private, probably should be the responsibility of the Office of Education. States, of course, must assist in this effort as I indicated to you before. States operate programs. We don't operate any programs so our data pretty largely has to be fed to us by the States, and this means that we must have tremendous cooperation and prompt and complete and accurate reporting. There we still have a long way to go.

I think there needs to be continuous dialogue which we're having here between the Employment Service and Vocational Education and other agencies. I can't emphasize too strongly that we need much more information than we already have, particularly in the area of placement studies, and then we need a wide distribution of this sort of material. Cooperatively, I think we could do this job, so I'm again pleased that this conference is addressing itself to this problem.

COOPERATION IN OBTAINING MANPOWER DATA

By Renato E. Ricciuti
Commissioner of Labor
State of Connecticut

Secretary of Labor, W. Willard Wirtz, suggested on several occasions that we would have to develop a system of universal education through age 21 to meet a number of social and economic problems. He first spoke of this when unemployment was an even greater problem--at least in terms of numbers and while only a few years ago the job problems of youth were even more critical as the period in which they entered the labor market in record numbers reached its peak. It was also a time when the discussion of automation took on the character of a national debate. It was the most discussed issue in periodicals, most popular subject of speeches and the most widely used theme for conferences of this type.

Problems debated and discussed today may be even more critical but we have confined ourselves to a narrower area. In the manpower field, there is an understandable tendency to be preoccupied with short-run issues, frustrations, and goals and to be sure, there are more than enough to keep us busy full-time. Conferences such as these, however, provide one of the opportunities to reflect once again on such basics - those areas which force us to devote more time to needs for the long run. Certainly Secretary Wirtz's suggestion is relevant to what you have been discussing here this week. It is indeed the substance and challenge to vocational education.

No one would suggest that universal education to age 21 means college education for everyone. We may not have come to any conclusion in our great debate over automation. We may not yet know whether technical change reduces or increases job opportunities in the long run. No one argues, however, with the obvious fact that the dynamic changes in industry create unemployment among the undereducated.

This is clear to all of us working in the manpower field today and must be our guide as we develop long-run approaches to manpower development and planning. I, for one, believe that we are moving in the directio of universal higher education, piece by piece, program by program. So, regardless whether it becomes a stated national or regional policy, we must recognize that it is happening. This means that the scope and responsibility of vocational-technical education is expanding immensely.

To begin to cope with the implication of such a trend, two things are obvious: (first) we must give even more attention to the planning needs of the manpower field; (secondly), we must accept the fact that the government's role in manpower development and planning is permanent, growing and strategic. Specifically, we must make greater use of our resources. We must continue to provide the ever growing needs of educators for current and future occupational information. We must know far enough in advance the skills our economy will require, the facilities we will need to train the teachers who will have to be available and the sources and timing of manpower supply.

In the Labor Department where manpower is the bread-and-butter of our day-to-day work, we are prepared to do our part of the job. I know that each day volumes of manpower information is generated in the department. It is essential in dealing with current tasks. It is equally useful as a basic resource for manpower planning. We recognize that it is essential to do occupational research.

In the March issue of "The Monthly Bulletin" a research study provides the kind of information all of us need to understand our job in relation to future job opportunities. It is a study of the present shortages and future employment trends by occupation in the Hartford Labor Market Area. The larger project - delineating the occupational patterns for the whole State of Connecticut - is well under way. When completed, it will provide a table showing occupation by industry for the entire State to the year 1975.

Between now and 1975, we in government face a great challenge in the manpower area. Originally, our entrance into the training field was intended to fill a vacuum left by the private sector. The feeling was that once government showed the way, the private sector would respond and fulfill its responsibilities, making it unnecessary for us to continue our efforts. However, while the private sector has responded to some extent, it is quite clear that the job of training the unemployed requires our continuing efforts, probably on an expanded scale. This fact was illustrated graphically by Stanley Ruttenberg's estimate that the government would soon be spending about $2 billion a year for training. In this very room the other day, I heard a management executive say that while he had vigorously opposed The Manpower Development and Training Act before its passage, he was just as vigorously applying for the available money now that MDTA is a reality.

We are going to be in this field for a long time unless we fail to meet our objectives. There are many people who are fond of saying that we cannot rise to the occasion and they are full of suggestions as to how to do the job better and faster. I believe the best way to disprove our critics is to cooperate on all levels of government to solve our nation's manpower problems. Success in this endeavor is vital to solving our racial problems, so that we can remove the stain of discrimination from our land. It is also vital to success in the struggle against our enemies in the world, for surely we are vastly outnumbered. If we cannot make our educational and training complex work so that our human resources are not eroded away by unemployment and discrimination, we are in serious difficulty. How we carry out our central role will be of great importance. In the last few years, those of us in Labor and Education have recognized our mutual dependency. We must continue our close cooperative working relationship and build bridges to our other partners in this field. Just as an example, the new program to train welfare recipients will require a close relationship with Labor, Welfare, and Education all working together. As never before, the interrelationships of social and economic challenges are evident.

Equally apparent is the fact that each and every one of us hoping to make an impact in solving these problems depends on the cooperation of all of the other people concerned. If we continue to work together, I am sure that we will make an important contribution.

MANPOWER INFORMATION TO MEET SPECIAL NEEDS SPECIFICALLY AS IT RELATES TO DISADVANTAGED YOUTH

By Herbert D. Brum, State Supervisor
Disadvantaged Youth & Work Studies Program
Ohio Department of Education

It is a privilege to have the opportunity to address this institute on manpower information for Vocational, Technical Education. It is particularly heartwarming to me that you are giving attention to information needed for youth and adults with special needs. As we talk about persons with special needs or disadvantaged youth, we are immediately faced with a dilemma of definition of those persons we are discussing. Who are these people? What are they like? What do we mean by persons with special needs? Who are the disadvantaged? Are disadvantaged youth different from disillusioned adults? We are constantly being bombarded with programs, formulas, innovations, ideas, and projects, all designed to solve the problem of our disadvantaged, our persons with special needs. As a means of getting at the problem of manpower information needed to develop vocational programs for these people, I would like to devote part of my time to defining the group about whom we are speaking.

In defining this group, I would like to direct my attention specifically to our teenaged youth. In other words, who are the youth with special needs? Who are those teenaged youth in or out of the schools of the United States considered to be disadvantaged? What are their characteristics? Do they look different than other people? How do they feel, how do they react? Where do they live? What are their ambitions, goals, desires, and finally how can they be brought into the main stream of American life, and realize to their own level of ability the American dream. These youths who are labeled as disadvantaged have special needs, are usually labeled by our educational system.

This is the first social institution that has contact with them, and therefore, becomes the group that tends to label them. Quite often this label is based upon the youth's inability to conform or to succeed in the usual academic, general education pattern under which most programs of public schools are organized. He fails to see relevance or "pay-off" in regular educational programs. There may be many reasons why the youth does not succeed educationally. These reasons may encompass physiological, psychological, socio-economic, or other types of handicaps. Regardless of the reasons, however, we then look upon those youth who have special needs, and whom we consider disadvantaged, as teenagers who for some reason have not been able to use education as a means to prepare for jobs and move up the social ladder. These youngsters are not failing in terms of their lack of success in academic education, but really our educational programs have failed them.

We know quite a bit about these youth we label as educationally disadvantaged, or who I am terming youth with special needs. These are teenagers who for some reason are usually at least one year or more behind in their grade, who have had a failure pattern in public school. Their parents' educational level is usually one and one-half years less than the average student's. By average student here we mean those students who in the public schools are doing average work, and in general considered to be succeeding to some degree. Youth with special needs in general, but not always, come from families or homes in the lower socio-economic brackets. Quite often these youths are from broken homes; in fact we have learned from a study in Ohio that one in every three of these kinds of youngsters are from families where there is only one parent present as compared to one in every twelve for the average student. Quite often these youth are from homes where the male head of the house is not working. Actually we found in Ohio that one out of every eight of these students comes from that kind of home, as compared to one out of every 50 students who are doing average work in school. In general, teenagers that we determine as disadvantaged, or youth with special needs, often do not have any occupational aspiration at all. Actually we found that only one out of every nine had any occupational aspiration, clear-cut in terms of his goal for a job.

Other characteristics we have discerned about these kinds of youth from our Ohio study indicates that generally these youth have very little, if any participation in school activities. They also have very little experience in any sort of religious organization. Their parents, of course, have no record of church participation. In general, we found that these youth have feelings of helplessness or powerlessness. Perhaps this has been brought about and developed by the educational system as it has continuously failed them and failed them. They also tend to feel rather meaningless, and have the feeling that they are always being used by someone. In general, these teenagers are very lonely persons. They feel isolated not only from the mainstream of society, but from each other. Quite often they gain this feeling of isolation because they are in situations where they cannot trust anyone; they are always being exploited by others. They are painfully aware of their situation generally, and they are dissatisfied with it. These youth do have aspirations and goals in that they don't want to be like their parents or their fathers. They value security very highly. They value security much higher than do other achieving students. In general, these students live for the present. Their immediate needs are more important to them. After all they are quite unlike our youngsters from middle class situations, or from loving parents, in that these youngsters need immediate goal achievement to satisfy their needs. As these youngsters become teenagers they are fed up with school in that it doesn't seem to be getting them anywhere. To them anywhere means money, clothing, and other goods that money will buy. These people fail to see much relevance to regular academic, educational programs in terms of meeting their immediate needs. It is no wonder that they become disillusioned and educationally disadvantaged. These youth are really suffering from irrelevant instruction. It is irrelevant in terms of their "real life" needs. They have had little opportunity to see where school has shown any results in terms of immediate "pay-off". Quite often those of us in education tend to feel that these kinds of youth have no use for education or are not interested in it at all. This is a myth. These students do want education. They want it in the very worst way. The difference is, of course, that they do not want education for the sake of education, but they only want education for an opportunity to be meaningful to them in terms of helping them get jobs, and gain those material things which all of us as a part of the American way of life desire.

Presently we know quite a bit about what causes teenaged youth to be educationally disadvantaged or labeled as school alienated. However, there is a great deal more that we need to know. For example, we know that work-study and work experience programs on real jobs with private business and industry coupled with the educational program in school do help these youngsters see new meaning, and relevance to education. These kinds of programs have been very successful in terms of helping these kinds of youth catch fire, so to speak, and continue on to become better prepared for jobs. However, there is much more that we need to know about these teenaged youth. Our Ohio study of 473 high schools as we identified and attempted to define some of the characteristics of youth with special needs at the teenage level, has given us some clues, however, we have only begun to learn about them. More has to be known about their socio-economic background. We need to know more about their physiological handicaps. For example, in one of our residential schools designed to serve disadvantaged teenage boys aged 16 to 21, it has been discovered that as high as 50% of these youth have had physical, medical problems which previously have been undiagnosed, that contributed directly to their educational failure. Much more needs to be known about the career concepts, and jobs concepts held by these teenaged youth. We know very little about the attitudes and values of youngsters whom we classify as disadvantaged.

As long as we are talking about the disadvantaged, or youth with special needs and their success in preparing for jobs, and becoming contributing members of society, I would like to talk just a moment about one serious lack of information that we now have. I have held the belief for a long time that quite often our teenaged youth whom we label as disadvantaged, those who come from poor socio-economic backgrounds, broken homes, or who have had social problems, do have some strengths upon which they might build. The questions that come to mind are: What is in the background of those youth we label as disadvantaged? Are there really some strengths upon which we might build in terms of developing job training programs? It certainly seems with the identification of characteristics of these youngsters that we ought to be able to find not only the weaknesses in their background, but some of the strengths upon which they might build. For example, is it not possible that the fact that these youth often come from poor conditions where they are isolated and thrown upon their own resources to survive, that they would have developed some of the characteristics and abilities, enabling them to look out for themselves, that might stand them in good stead as they continue on in life? In today's modern technology a lot of attention is given to developing the ability to change and be flexible coupled with the willingness to be mobile, and try new ideas and accept new ways and new thoughts. It might be that those who have come from backgrounds that cause them to be labeled as educationally disadvantaged have built into their background some of the experiences that can be capitalized upon in this regard. Certainly they have had experience in being flexible in terms of meeting new situations, new challenges, new problems. Perhaps these youths may have strengths which will help them in a rapidly changing society, and put them in a better position than some of our more advantaged youth. Those youngsters who come from sheltered homes where they always have stability in terms of plenty of love, shelter, care, and constant supply of their immediate needs, might be thrown into "combat shock", so to speak when they hit new and unexpected problems in the world of work, or in life. These youth are quite often unable to adjust to new situations which they have never faced; new problems that have vitally affected their being. My whole plea here is this, can we, as we give our attention to manpower information that is needed to prepare these youth for employment, take a look at the background of these youngsters in terms of identifying those experiences and attributes which we can capitalize upon as we work with them educationally in preparing them for jobs? It seems that too much of our manpower research with regard to these people has been directed to identifying what it is that is wrong with their background, what is wrong with their attitude, values, and social concepts. Perhaps, we can now try to identify some of their strengths, and begin to use those in building better vocational education, job preparation programs.

I have spent a good deal of time now trying to identify these teenaged youths and spell out some of the characteristics of those whom we consider to be disadvantaged. The next question in terms of need for information that faces us, is how many are there? We often hear percentages and numbers quoted in terms of those teenaged school alienated youth in the public schools of America. How many disadvantaged teenaged youth are there? Recent information included in the 66th yearbook of the National Society for the Study of Education with regard to these people, indicates that 15 to 20% of all early teenaged students in our schools are disadvantaged in terms of education. It is further pointed out that 35% of our teenaged school students in the big cities of the United States fall into this category. We in Ohio in working with some of our eight major cities, have found that this percentage rises as high as 50% in the inner-city areas. Certainly when you have high drop-out rates such as 4,000 teenagers dropping out of one city school each year, 2,500 out of another, 2,000 out of another as is the case in some of our cities in Ohio, it is easily discernible that something must be done to prepare these youths for jobs and help to make education more meaningful for them in terms of "pay-off." We are not talking about the educationally retarded here, after all, there are only 2% of the population classified as educationally retarded. We're talking about those youth whom we have described earlier as not succeeding in education or in school due to some handicap. The fact that they are not succeeding indicates something must be done. Perhaps vocational education has the greatest role of any facet of public education in terms of developing programs designed to help these youth perceive meaning to education through occupational work experience or work-study type programs.

We need further information concerning the kinds of teachers or other educational personnel needed to work with persons with special needs. For example, these people we are talking about are the hard to teach. Certainly the hardest to teach are those in need of the most competent teachers, not the reverse. What do we mean by competent teachers? What do teachers need to know, what attitudes, values, beliefs, must they hold in order to be successful with these kinds of youth? One thing we do know is that these teachers, to be successful, must have a sound and sure belief in the potential of these youth and a belief that they can learn and can succeed. The average or below average student in terms of educational aptitude certainly deserves as much or more attention as the academically gifted. No student should be placed in a second class category simply because others are easier to teach. After all those who are the easiest to teach really may not need teachers at all. Teachers may only retard them in their progress, whereas, those who are hard to teach become the ones to whom education and vocational education can make its greatest contribution.

Vocational programs for disadvantaged youth to be effective must embody more than techniques, devices, and gadgets. These programs must be directed by persons imbued with a spirit of hope and ultimate success in terms of helping youth succeed and become better people, and more productive citizens with jobs. These people, the disadvantaged with special needs, do not want to be treated with tolerance or condescension, but want to have an opportunity to help themselves by coupling together learning and work for wages as a means of helping them to be important people, and gain a stake in our society and our economy. They want teachers to treat them with respect. They want teachers who are mature human beings, interested and truly concerned for them and their potential. Surely the success of these programs will depend much upon the human concern and positive attitude of the personnel, as well as adequate equipment facilities, and programs. An identification of some of these characteristics that make teachers succeed with these people is sorely needed.

What is the real test of whether or not a person or a teenager is disadvantaged? The real test is, can he survive in society, hold a job, earn a living. Too often, perhaps, youth are labeled as disadvantaged by our educational system when really they may need a different program, a different curriculum. This is my belief. These people need educational programs which will help prepare them for jobs and show relevance and contain a built-in pay-off through part-time work for wages as a part of their educational program.

In many cases, our disadvantaged youth have been created by an educational system that has become obsolete in terms of preparing youth for the world of work, or youth able and equipped with skills to succeed in our society and economy. The youth that we label as disadvantaged oftentimes are the first to perceive this irrelevance.

As we look at the problem of identifying manpower information which will help us maximize the productive capability of the disadvantaged or special needs person, let us look at job and employment information needs. In working with youth of this type, we must first recognize and freely admit to ourselves that they do have handicaps in terms of education values, attitudes, job adjustment characteristics, and work habits. Once we admit this, then we should not merely accept this as the state that will always be, but only accept it as a starting point. After all to be successful with these youngsters, we must look at them where they are, and help them develop to where they ought to be. For as a famous philosopher once said, "Do not merely accept people as they are and let it go at that, but accept them for what they ought to be, because then we have an opportunity to help them develop." When we realize that youth do have problems, do start with handicaps, we need to know more in terms of the kinds of jobs that will help to prepare them for other jobs. We hear a lot about deadend jobs. Really are we talking about deadend jobs, or about the inability of people to use one job as a stepping stone to another? Quite often successful experience in a job, and recommendation of an employer regardless of how menial the job helps the person secure another and better job.

Much more information is needed that will show the relationship and articulation of various kinds of jobs in business and industry. It is certainly imperative that persons with special needs be helped to achieve visibility and viability in terms of career development. Quite often these people feel that the first job they secure is the final job they will ever hold, and fail to realize one job can be part of a spectrum of jobs all leading up the ladder of their success. We, in developing our manpower information with regard to jobs and employment, perhaps, ought to give more attention to showing the interrelationship of various jobs and employment patterns, and how experience and skill in one particular area can lead to other areas.

More information is needed with regard to why the employees fail on jobs. This is particularly true when we are speaking of youth and adults with special needs, since they are the ones most likely to have difficulties in holding a job. Perhaps, we should devise ways and means to follow up these people once they are placed on their first job, so that they can be assisted with the problems that develop that are job related, or are at least related to their ability to succeed in the environment in which they are working. It well may be that when a worker of this type secures his first job, it is in a different environment than the one in which he has been used to. This new living and social environment in which he is thrust, oftentimes might generate some of the reasons why he tends to fail on the job. Perhaps, more than skill is involved in job success, particularly for the disadvantaged or those with special needs.

Apparently, the whole area of jobs known as the services industry is increasing rapidly. We need to upgrade the image of the service industry. We need to make a better analysis of worker competencies needed for various jobs. It seems to me that quite often we have lived under some false assumptions concerning the capability, training background and competencies needed by various workers on certain jobs. For example, many of the routine repetitive operations on an assembly line might well be better performed by persons who are disadvantaged in that they would be less likely to become bored with the job and careless. Perhaps, we are really kidding ourselves in many cases when we say that a certain number of years of vocational instruction is needed to prepare a worker to operate certain machines in industry. New job studies with regard to worker competencies, ought to be made continuously in order to enable vocational education programs to better prepare people for all kinds of job clusters in a more realistic manner. After all, performance on the job is the ultimate test, not whether or not the person has certain credentials illustrated by certificates, diplomas, or degrees. Perhaps, we are placing too much emphasis on credentialism for securing jobs.

In summarizing, I would like to reemphasize the vital importance of giving attention to better serving the disadvantaged, the persons with special needs. In order to better assist these people to achieve the American dream of jobs, material possessions, and success, it is important that we know more about their background, their attitudes, their characteristics. It is important that we begin to look at these people more positively in terms of identifying their characteristics that can be used as strengths on which to build job training and educational programs. Although we know that work-study, occupational work experience type programs help these kinds of youth see new meaning and relevance for education, more needs to be known with regard to the development of work experience and work-study programs for our youth who seem to be alienated from the usual academic kinds of educational programs. How can these programs be developed in accord with business and industrial objectives in a free profit making enterprise system? After all, private employers must make a profit in order to stay in business, and the majority of all workers are employed in the private sector. What support should be given employers who cooperate with the schools in providing these kinds of programs? We need to give more attention to the realistic analysis of jobs and employment in terms of worker competencies, rather than credentialism. Ways of helping persons with special needs who have secured jobs, continue to develop and grow on the job, need to be devised.

The development of programs in the area of Vocational and Technical Education designed specifically to serve youth and adults with special needs is of vital importance. Certainly, we must give our urgent attention to developing job preparation programs which will help bring new meaning to education to many of our school alienated youth, thereby preventing disadvantaged youth from becoming disillusioned adults. Our society cannot afford to shortchange so many youth and label them as disadvantaged in terms of their future jobs and careers. It just may be that with the proper background of manpower information upon which to build viable vocational education programs for youth with special needs, that these programs can then become a job preparation core around which much of public education can be clustered. That will help the youth whom we have just described to see immediate pay-off and new meaning in public education. Perhaps, they can then see that education can serve them as it served many of their great-grandparents as a means to social and economic success in this democracy. Just as their grandparents, they should be able to see and believe in education and vocational education, as a means of securing a job and climbing the ladder to monetary success and social prestige.

MANPOWER INFORMATION TO MEET SPECIAL NEEDS

By Earl Klein, Director
Human Resources Development Section
U.S. Employment Service

Current stress of various government-sponsored programs is on the poor - in education, manpower, health and social service. Those who are not physically or mentally well can't work well, therefore the problems are interrelated both socially and economically.

The disadvantaged are defined as those individuals who are: 1. at or below the income level established by social security information, 2. unemployed or underemployed, 3. in one of the following categories: under 21 or over 45, below the high school education level, physically or emotionally handicapped or a minority group member.

This stress has not been easily accepted. Whether you work in education or in employment, you are pressed for results, and measurable results do not come easily when you are asked to educate and train the most difficult to train, to test the untestables, to place in jobs those who appear to be unemployable. Besides, the cost-benefit analyzers, who examine investment in manpower programs versus benefits to the individual and society, don't necessarily believe that the returns warrant the investment in the hardest of the hard core. Individual differences prevail among the poor or elsewhere, in a sense developing a hierarchy among the poor of hard core, harder core and hardest core. Fortunately, for all of us, the science of cost benefit analysis is young and imprecise and we are left mostly with our intuitions and emotions to guide us in the direction of helping those who need help the most.

Our institutions, the public employment services, education and employers have not taken this on without considerable urging. Besides the inhibitions imposed by the cost-benefit analysis approach, which when applied to manpower programs is a kind of manpower information, concentrating efforts and resources on the disadvantaged violates sacred principles of personnel selection and management which for years have been directed toward finding the most trainable, those most likely to be efficient, those who can best accommodate to the functional and social aspects of work. Now human needs and social pressures dictate that we turn around and we have been in the process of doing that during the past few years. It has driven us to probe deeper into human values and potential through experimentation, demonstration and research. The motivating thought is: every individual has worth, some contribution to make. Let's find out what it is.

As a consequence, both public institutions, employers and unions have had to rethink their missions, their services, their way of doing business. In the past few years we have seen considerable change. While I can speak more intimately about the manpower programs of the Department of Labor, such as those of the Employment Service, there have been basic changes on the part of education, the public hiring sector - represented largely by Civil Service systems, the private hiring sector and organized labor.

For example, the public sector has hired many more physically handicapped and an increasing number of mentally retarded. The State merit systems have relaxed their hiring requirements, eliminating many written examinations or else offering orientation to examination taking. The private sector has offered JOBS - Job Opportunities in the Business Sector - an immediate placement program. In order for these programs to succeed it is necessary to shore up not only the worker but also the employer to accept and adjust to the socially and vocationally handicapped. As far as organized labor is concerned, the Chicago Urban League is sponsoring tutorial and counseling programs in cooperation with unions in order to get more Negroes into apprenticeships. This has met with modest success.

A high participant in the manpower programs of the Nation, along with education, social welfare and related anti-poverty agencies, is the public employment service system. At the local level it comprises the major delivery program for manpower services. In relation to the poor and disadvantaged, the Employment Service has developed a service concept called the Human Resources Development Employability Model. This concept demands a highly individualistic approach to the program. Outreach is designed to get the services where the people are instead of waiting for them to come in. It attempts to provide a one-stop neighborhood service center staffed by indigenous workers.

Surveys are being conducted to determine characteristics of employment status of ghetto residents. One such survey carried out in 1965 at the direction of the Secretary of Labor showed that unemployment in the ghettos is much higher than it is across the country as a whole.

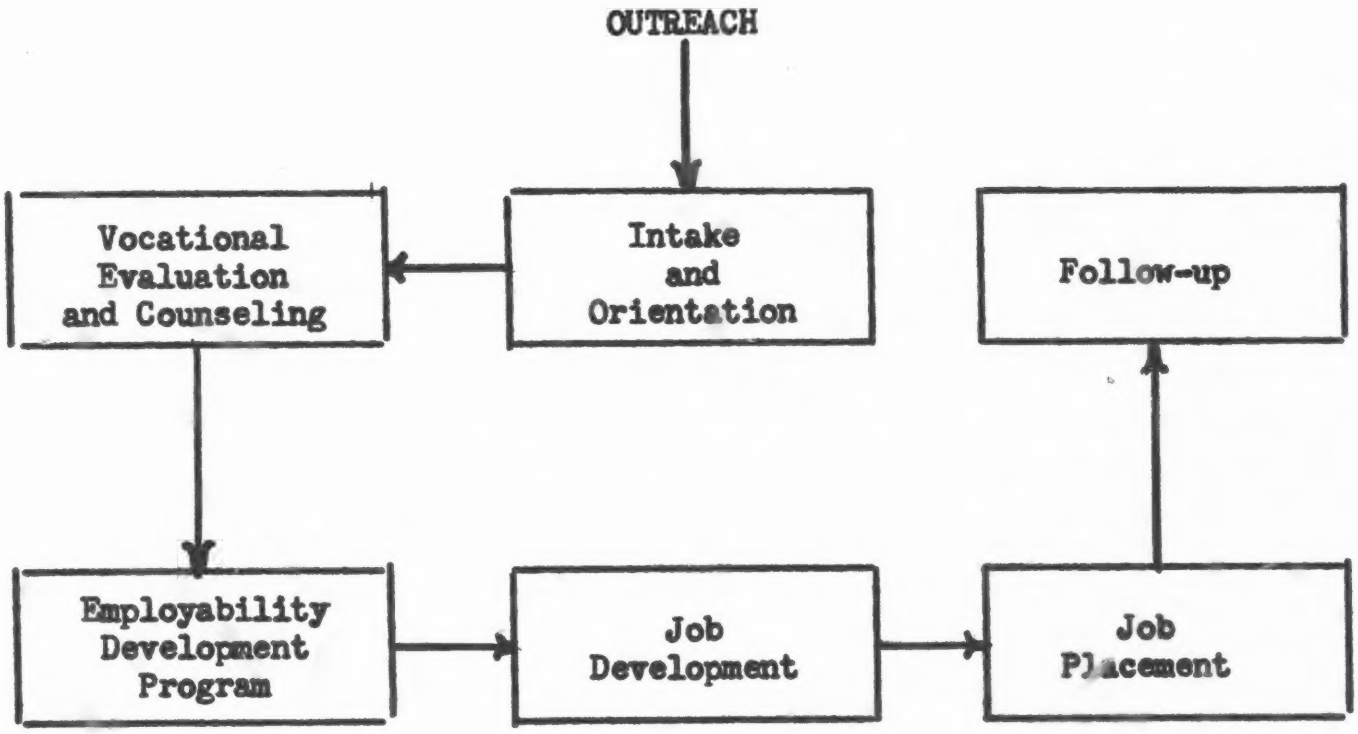
In the HRD model the intake and orientation phase studies the individual's qualifications and characteristics. The aggregate provides information for planning training programs. This is followed by orientation to the world of work, job opportunities, how to look for a job, disciplines of work, job behavior, and motivation by tying in with job tryouts.

To improve vocational assessment techniques the non-verbal GATB is employed. This utilizes 27 work samples relating to Dictionary of Occupational Titles categories for those who are unable to complete written tests. This gets away from those tests which do not give reliable readings. The counseling at this stage is directive counseling with emphasis on immediate goals.

Employability development includes such work experience programs for the middle aged and older people as MDTA. As the individual progresses through job development into job placement he is exposed to an applicant oriented system which begins with the job seeking client rather than with the employer. This system with its applicant emphasis is being tried in New York and is being watched with considerable interest.

The chart below outlines the steps that are followed in the Human Resources Development Program. In addition to the services listed such supportive services as tutoring, coaching and child care facilities are provided.

HUMAN RESOURCES DEVELOPMENT EMPLOYABILITY MODEL


OUTREACH
Vocational Evaluation and Counseling
Intake and Orientation
Follow-up
Employability Development Program
Job Development
Job Placement

MANPOWER INFORMATION TO MEET SPECIAL NEEDS

By Howard Matthews, Director
Manpower Development & Training Div.
U.S. Office of Education

Despite the increasing emphasis on manpower programs no discernible manpower policy has been defined. The two basic goals of manpower training and retraining, however, may be stated concisely: 1. Make them more employable. 2. Get them to accept the new world of employment.

For manpower planning I refer you to "Social Policies for the Seventies" by R. Theobold, which was published in February, 1968, by Doubleday. He stresses two factors which must be recognized in manpower planning. 1. There will be increasing diversification of jobs. 2. The knowing unit, not dexterity, will make the difference in where you go in your job.

A question that is frequently raised is: Why are there so many Federal manpower programs? It must be borne in mind that the Federal Government is the only one which represents all of the people. It is the only unit able to look at gross economic problems in total perspective.

What are some of these problems? We need greater ability to manage people. For example, many of the disadvantaged that Earl Klein mentioned are disadvantaged by way of correctible birth defects. Yet in this country one out of four mothers last year saw no doctor. These mothers must be made to seek medical treatment, but what government agencies could bring about the desired results without violating the fundamental resources of the human being? What agency can be used as multipliers - Public Health? Welfare? Who should be in a position to do something about them?

Another problem is the taxonomy. Various definitions are used but what we need is uniformity. If you take the source document for the county school superintendent you can learn a great deal about the manpower situation in a given area. This could be developed with uniformity and sent on to the Employment Service and the U.S. Office of Education. Despite the difference in purpose it would contain much valuable information. Not only do we need to develop the taxonomy we must also increase the sharing of such source documents. Mutual exchange between the local school area and the government manpower agencies could benefit both. Finding jobs for the unemployed parents will make the school better for the kids, keep them in school longer and turn them out better prepared to enter the workforce.

To explore further ways of keeping pupils in school and to make the learning experience more meaningful to them we must study attitude methods and input other than pencil-and-paper type. Often things we take for granted are completely foreign to the pupil being tested. For example, some teenage boys were given a standard word test and asked to give the opposite of several very common words. Almost all left a blank after the word "for". It seemed simple enough to those who devised the test, for - against. To these kids with their group identification the word that is the opposite of against is not "for" but "with" - you are either with us or against us. The words as well as other testing devices must be associated with familiar situations and the testing techniques must take these into account.

There is a special need also for broader and deeper opportunities for those adults whose basic education is deficient. About 30 million members of the present labor force lack high school diplomas. Some eight million have not completed the eighth grade. One-sixth of American youth cannot qualify for military service because they are unable to pass a seventh grade equivalency test. Yet opportunities for adult basic education are few, and knowledge of how to overcome the problems of teaching adults is meager.

Retraining programs need to be expanded rapidly so that a significant percentage of the local labor force is retrained annually. The training provided thus far by the Manpower Development and Training Act has demonstrated that a significant capacity for training and retraining exists outside the public school framework. It has also uprooted some entrenched ideas about how long it takes for the American worker to develop the skills necessary for an entry-level job, for entering apprenticeship or on-the-job training.

There is increasing evidence that one of the most effective ways to retrain people--whether displaced as a result of automation or unemployed because of social and economic disadvantages--is through cooperative education programs. In such "person-centered programs," the school develops instruction best suited to the classroom and helps a potential employer develop specific work skills at the job site. The total training responsibility, however, rests with the school.

It has been far too common in our tradition of mass free education to blame failure on the shortcomings of the student and to neglect innovative techniques which could meet the student's needs. Reducing economic barriers helps those who can respond to well-established techniques of formal education. But it does little for those, either in or out of school, who cannot make effective use of established training patterns. The task must focus, then, on adjusting the system to meet the needs of people who cannot be reached through existing educational methods.

Considerable experimentation and research in the application of computer technologies to educational problems is under way. Much of what is being done bears on compensatory education techniques for disadvantaged people in the labor force and on the development of a system of continuous, lifelong education. Applying new techniques to systems of education is difficult because it requires overturning antiquated methods.

Through newer techniques, a wider variety of individual learning patterns can be recognized and accommodated. The new technologies can also relieve teachers of administrative chores so they can spend more time helping individual students.

In short, more educational programs of high quality must be made available. But the word "quality" should not be confused with sophistication of course content. "High quality programs" are those with adequate resources, well-trained teachers, suitable buildings, and appropriate curricula and educational methods. These are possible only through partnerships between agencies of the Federal, State, and local governments, private employers and trade associations, labor unions, and the rest of the community.

The beneficiary of this careful planning and cooperation is the student in the first instance. In the long run, society as a whole can be expected to benefit.

WORKSHOP FINDINGS

Each afternoon the conferees were divided into four workshop groups of approximately twenty each. Under the direction of leaders and recorders selected by the conferees, they discussed the lectures of the morning sessions and structured problems which were also presented to them. A summary of the discussion findings is outlined below.

Adequacy of Manpower Information

The workshop groups felt that although much information is available, it is neither adequate nor accessible in its present form. Current information is not effectively and adequately utilized because it is prepared for other purposes than for planning vocational programs. The opinion was that existing classification systems serve many needs well, and the real need is for development of techniques which will make available information more usable for vocational educators through the use of conversion tables, matrices, etc.

The following suggestions were offered as means of increasing the utility of current data.

1. Clarify terms and nomenclature used by the Employment Service and vocational education.
2. Relate data to OE Code.
3. Break down data by professional, para-professional, technical and related categories.
4. Identify agencies and organizations which can be involved in manpower studies and the information they can supply.
5. Determine what information is actually needed in vocational program planning and the uses of various types of information.
6. Implement State data collection techniques to conform with federal data system.
7. Encourage dialogue between the Employment Service and Vocational Education to identify needs.
8. Develop guidelines for States to use in data gathering.
9. Identify priorities.
10. Assign specific vocational education staff personel to be responsible for gathering and interpreting occupational information.

Manpower Information Needed for Vocational Program Planning

A. Employment

  1. Current national labor picture and trends

  2. State level needs

  3. Specific local labor market needs

B. Vocational Students

  1. Interests of potential students

  2. Abilities of potential students

  3. Adequacy of information available to potential students

  4. Graduate follow-up

  5. Drop-out follow-up

C. Job Entry Level Requirements

  1. Information developed by advisory committees of management and workers who can delineate knowledge and skills needed for entry into and success in particular jobs.

D. Industry and labor training programs

  1. Identification of training units

  2. Determination of output of trained employees from agencies other than vocational education.

Changing Occupational Structure

The groups felt that program planners and developers should be cognizant of and concerned with emerging occupations, and when the demand becomes clear they should be given proper priority. However, it was advised that these new occupations should not be developed at the expense of on-going programs for which there is an even greater demand.

It was agreed that the States represented generally were not being negligent through the teaching of old methods or obsolete occupations. However, some examples of continuing outmoded occupations could be cited. These centered around areas in which expensive equipment is involved - the printing industry for example. Expensive but obsolete equipment was cited as a particular handicap to updating existing programs.

Some training areas are seen as declining but few are actually disappearing. The groups reported that changes within many occupations demand knowledgeable projections of transferable skills.

Problems related to negligence in training were:

1. Some States train for occupations outside State boundaries while neglecting occupations in short supply within the State.
2. Some groups, e.g., librarians fear competition from trainees with less than four years of college and oppose development of programs.
3. Some industries, e.g., printing continue to train people in old methods.
4. Some older programs, e.g., machine shop may be neglected when newer programs are being expanded.

The conclusion drawn by the groups is that obsolescence is always a possibility and should be guarded against by constant updating of programs.

Other Sources of Information

One group identified several sources of information not specifically mentioned by morning speakers. Examples were: chambers of commerce, engineering councils and trade associations. The basic recommendation was that persons in each State identify organizations conducting useful studies and take advantage of their work. Suggested sources of identification were Labor and Commerce Department or other departments of State Government.

Another group advised that before hiring other research agencies to gather information for their particular needs, vocational educators should lend financial assistance to the Employment Service to enable the existing agency to expand its services and to provide the needed data.

Summary

The general conclusion is that present information as compiled is becoming more effective because each agency concerned is beginning to understand the points of view and operational needs of the others. New tools and techniques as well as a more cooperative spirit is making this possible.

RESULTS AND ACCOMPLISHMENTS

The development and use of manpower information for vocational education during the six months following the conference is being compiled. A questionnaire was sent to the conferees in late February requesting data on their State as to manpower surveys being made and the use of manpower information for program planning, facilities planning and legislative purposes. The summary of these findings will be available in mid-May.

Recommendations Passed by Participants

On the last day of the conference the participants expressed a desire to make recommendations and to have these forwarded to the U.S. Office of Education and to other appropriate agencies. Those recommendations are:

1. Each State Employment Service and Division of Vocational Education improve liaison, and establish an active committee to improve communication for a basis of better cooperation in planning vocational programs to meet manpower needs.
2. A system be initiated whereby such inter-agency committee screen what is available and package it appropriately. From this could evolve both national and state information disseminating centers.
3. Channels of communication be established from local and state levels to the federal level, even to the cabinet level.
4. The liaison committee established at the national level rush through the guidelines currently being developed for use by states in gathering, preparing and using manpower information.
5. The conversion tables that are being developed to be used in comparing vocational instructional programs to occupations as classified in the Dictionary of Occupational Titles be completed as soon as possible, so that they might be used in conjunction with the new guidelines mentioned above.
6. Both the guidelines and the conversion tables be given wide distribution so that all Vocational educators and Employment Service personnel concerned may receive copies.
7. The Office of Education and the Department of Labor at the national level review sources and resources available to the state agencies when requesting data on manpower needs and similar vocational data, making certain that such data are available in the state offices before issuing the request.

8. When new policies and developments become available, regional and local conferences including state and local education personnel be held to acquaint responsible officials with these innovations.

9. The U.S.O.E. allow sufficient time for completion of requests for information. (Certainly more than one week should be allowed.)

10. There be national certification for educational statisticians. It is desirable that workshops be held for the development of criteria for this certification.

11. Overemphasis on statistics and statisticians be reduced.

12. The group attending this conference and the agencies they represent lend their support to the passage of the mid-decade census.

13. An ad hoc committee be formed to prepare the format for a follow-up of the conference. The follow-up - a workshop - will create precise recommendations for implementation of a system for the distribution of manpower data.

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APPENDIX A

EVALUATION

Objectives

Evaluation of the Conference on Manpower Surveys for Vocational-Technical Educational Planning was undertaken primarily to identify those areas which were of greatest benefit to the participants, to determine whether their needs were met and to obtain suggestions on the conduct of future institutes.

Procedure

One week after the close of the Conference a questionnaire was mailed to each participant. Seventy-six percent of those who had attended responded to the initial request, providing opinions on:

1. parts of the program that were most helpful and least helpful

2. format

3. usefulness of information presented relative to implementing programs or meeting needs

4. ways of improving future institutes

Because of the number of persons, the diversity of employment backgrounds and the broad geographical area represented, the written questionnaire was considered to be the most feasible instrument for measuring the effectiveness of the Institute.

Follow-up on the Conference was divided into two phases - the initial questionnaire was sent out one week after the close of the Conference, the second is scheduled for February, allowing six months for implementation of programs using methods described at the Conference.

The earlier request was designed to elicit responses concerning the Conference itself while the later questionnaire will attempt to pinpoint areas of application of benefits derived from the Conference. A supplementary report will carry these later findings.

It was decided to mail the questionnaire to the participants after the close of the Conference rather than ask that they be filled out at the last session. Before leaving, the participants were advised that such a form would be forthcoming and were told what it would contain. This was done in order to allow them more time to reflect on their responses and to answer with greater objectivity and depth than would have been possible in the brief time available at the final meeting. Although it was realized that the rate of response would be lower it was felt that the quality of the replies would more than compensate for this loss.

In order to encourage frankness of response the participants were advised that no signature was required on the questionnaire. Despite this almost all forms were signed and included names of the respondent's agency as well. This last fact proved very helpful in the evaluation as it afforded an opportunity to observe the effect of the Conference on members of the various agencies represented. Judging from the comments the replies represented considerable thought.

A few respondents wrote glowing reports on the Conference, one or two condemned it entirely and the great majority reportedly derived considerable benefit from their attendance and were able to provide suggestions that were most constructive.

Turning to the questionnaire itself we shall attempt to give a general summary of the returns and then provide sample responses to the questions.

1. What part of the program was most helpful to you?

The response to this question showed a fairly even distribution among the five major topics covered. The topic and the percent of replies listing the topic as most helpful follow:

Need for Manpower Information	25%
Utilization & Effectiveness of Manpower Data	22%
Availability of Manpower Data for Vocational-Technical Education (primarily National Sources)	18%
Manpower Information to Meet Special Needs	18%
Coordination in Obtaining Manpower Data	17%

Many expressed the opinion that the Conference afforded an excellent opportunity for educators and Employment Service people to view or review each other's duties. Representative answers follow.

From the Employment Service

- I gained most from lectures outlining types of manpower information needed by State and local Vocational-Education departments, from those who presented specific programs of projects designed to provide that information and those who presented ways and means of establishing correlated inter-agency manpower definitions and terminologies.

From Vocational Education

- Specific information from agencies regarding kinds of materials available and suggested avenues of securing information from sources not previously considered.
- Learning how procedures are utilized by other States in obtaining information on manpower needs and concerning research on manpower needs, economic and employment projections and/or community surveys.
- Lectures were helpful in increasing understanding of 1. methodology of data collection - U.S. Department of Labor and 2. problems in communications of the U.S. Office of Education and the Department of Labor.

Especially profitable for some were the opportunities to present problems and ideas to officials in Health, Education and Welfare and the Department of Labor for better planning and coordination at the Washington level.

Described as a valuable experience was learning that problems previously considered local apparently are commonly shared by people in vocational education. This relates to the greatest single benefit outside of the formal program - indeed in some instances its value exceeded that of the program - the opportunity to exchange ideas informally with other participants, to relate to members of other agencies, to compare views and concerns with them and to see that an interrelationship does exist between Education and Labor.

Which was of least value?

The afternoon workshop sessions were most often mentioned as least valuable to the participants. Because of the lack of structure, particularly in the Monday session, it was generally agreed that these workshops fell far short of realizing their potential.

When questions were assigned, as the week progressed, these sessions showed improvement, however participants found that even then goals and objectives continued to be vague and discussion very general and somewhat superficial.

Criticism was leveled at overemphasis on generalities of need, availability, cooperation - on things that were already known - while there was a decided preference for more specific information. For example, much of the information on coordination was a review of existing problems but there were few solutions to these problems discussed.

The rapid succession of speeches, in one case seven during a single day, proved to be more than the participants cared to sit through. The specific topic most frequently mentioned as being least beneficial, the Availability of Manpower Data for Vocational-Technical Education - State and Local Sources, was presented during that afternoon session. Perhaps at the end of such a long day, any topic would have met with a similar reaction.

What is your opinion of the format of morning lectures followed by afternoon workshops relating to the morning lectures?

Opinions on this question ranged from an unqualified "Excellent" to a preference for longer question and answer periods in place of the workshops.

The general feeling was that this would be a very effective manner in which to proceed if the following conditions were met:

1. questions of common value were given to all workshop leaders

2. chairmen and recorders were assigned and briefed beforehand

3. discussion related directly to the previous lectures

4. speakers were available in discussion groups as resource people

5. workshops were more tightly structured

Other suggestions were to have fewer speakers at a session followed by longer question and answer periods, or by small workshop groups, this pattern to be repeated in the afternoon session in place of limiting lectures to the mornings and discussions to the afternoons. This would then enable participants to "zero in on specifics" as questions arose.

- Although the format of morning lectures and subsequent informal afternoon discussions was favorable, the number of speakers was too much for any audience. It was an impossible task to assimilate the bombardment of information reflected by the many speakers (an average of five per day).

It was felt by some that the workshop groups were too large and members too diversified to deal effectively with discussion topics. Assignment to groups according to agency would have allowed participants to consider common problems specifically rather than limit themselves to generalities. Small workshops would have been good areas in which to give details on the actual conduct of surveys, etc.

A desire was expressed for the use of diversified instructional techniques such as audio-visual and for the inclusion of inspirational, theoretical or philosophical speakers in addition to expository lectures. Further benefit might have been gained from interaction between speakers as well as between speaker and participants.

The late afternoon recap by each of the workshop leaders was especially worthwhile to some participants.

Was the information presented useful to you in implementing your programs or meeting your needs?

It is too early to determine what the full impact of the Conference will be, however some responses indicated a positive feeling with regard to expectation of future usefulness.

- I have a greater awareness of sources and/or direction to meet current problems. This is attributable to information received from the conference.
- Not directly and immediately but background and tone achieved have a stimulating and pervasive long range effect on progress of work and thought.

To some of the participants the information presented was seen as helpful in planning and developing programs, in the search for sources of further information and models for long range planning, and in developing work study programs. There were two major reservations expressed regarding the application of new information:

1. the availability of staff and funds for implementation of programs
2. dependence upon linkage with other agencies and offices, the practical value hinging upon capabilities and receptiveness of those agencies and offices.

To some, national information was especially useful although others found few new sources or techniques mentioned. Of those sources that were cited most are not yet available.

One participant attributed the lack of specific information to the difference in each State's administration of vocational education.

A community college representative claimed that he had obtained information on how to use the Employment Service to good advantage. He expected that as a result of his attendance the college may obtain more accurate information on job needs.

Several Employment Service people acquired a clearer impression of how vocational educators view their relationship to the labor market and felt that this would enable them to gain an understanding of Vocational Education's needs and enable them to cooperate more effectively in furnishing materials for the benefit of both. A counterpart in one of the States, however, apparently unimpressed with the bulk of the vocational-education presentations felt that most of the vocational education people don't know what they want or wouldn't know how to use it if they did.

Another criticism was a lack of substance and too much duplication on the parts of the speakers. More positive ideas and methods of utilizing manpower data would have added considerable weight to the presentations and discussions.

- Why not give us more positive ideas and methods on utilization of manpower data and let us evaluate and decide whether to utilize them or not.

- I was looking for ideas on how to go about planning and implementing the search for adequate manpower information and making projections from this information to the State Board for Vocational Education for use in developing and evaluating program. I was of the opinion that this was listed in the brochure.

- The Institute did not meet its advertised, stated objectives. I attended to learn how to conduct studies to obtain useful manpower information and to transfer this data to meaningful vocational programs. This part was conspicuously absent.

Suggestions for improving future conferences or other comments.

The main purpose of this section was to determine what changes should be included in plans for future conferences. Several of these suggestions centered around the afternoon workshop session as discussed in response to question 3.

1. Structure workshops

2. Designate discussion leaders and recorders briefing them beforehand as to their responsibilities and the procedures to follow in allowing all participants to be heard.

3. Have members meet in smaller groups structured to fit their needs, i.e., community colleges, state officials, high school and vocational schools.

4. Have resource people available at all group meetings.

Also suggested was variation in workshop membership so that each participant would have contact with a larger number of people.

With the number of speakers involved in the Conference as structured it is only to be expected that several of the suggestions and comments should focus on the quality and quantity of the presentations. The latter drew more specific comment. Because of the single method of presentation, primarily expository in nature, many of the participants found it difficult to absorb much from the succession of speakers often with little or no discussion or break between them.

Some of the speakers were described as dynamic and held the attention of the group, particularly cited were speakers on the first and last days, however much repetition and generalization, especially when presented in essentially the same format, often made concentration difficult.

Participants felt that specific directions to the speakers beforehand allowing them to prepare better lecture and visual techniques would have enhanced communication. A few overhead projectuals, slides, handouts and typical samples would have encouraged participants to assimilate more.

It was recommended that if certain other efforts had been made prior to the Conference they would have helped considerably in developing presentations more relevant to the needs of the candidates. If each prospective participant had been asked to list specifically what he hoped to gain from the conference, to identify areas in which he needed help, the results could have been compiled, sent to the speakers and more directly applicable lectures might have been developed.

Participants also suggested that such responses could serve well in the structuring of workshop groups, allowing conferees to be assigned to, or to select, the group which was exploring methods of dealing with a specific problem or set of problems of interest to them. Resource personnel could then have been prepared in advance to assist in these areas.

One participant believed the group would have profited from being advised of source material prior to the Conference enabling them to study the materials and thereby making it possible to pinpoint specific areas where clarification is needed. Another suggested that at the Conference

- A comprehensive exhibit of relevant literature assembled from speakers, participants and commercial publishers along with reproductions of various lecture materials would have been helpful.

- Participants could have been encouraged to bring or send examples of studies and operations procedures for display or exchange.

Cited as a major drawback of a program based largely on lectures is that it does not promote personal involvement of the conferees. If the participants had shifted occasionally from a passive to an active role they would have contributed more to the Conference and in all probability would have derived more from it. Suggested ways of designing a program to utilize different group leadership techniques would be to include some of the following: panel discussions, listening teams, shadow panels, participant panels, problem solving conference sessions or participant debates.

Also proposed for future Conference panels was selection of more diversified sources such as professional organizations, private employment agencies, associations of commerce, employer representatives - administration, production and training executives - as well as directors of school follow-up studies and representatives of higher education.

A summary of other recommendations includes requests for:

1. earlier issuance of participant lists

2. earlier report of proceedings

3. comprehensive exhibit of relevant literature assembled from participants and commercial publishers

4. guide booklet listing sources of information essential to people working in the area of manpower needs

5. group production of guidelines or outlines that could be duplicated and could serve as a tool for conferees on their return to their work environment.

Areas of discontent affecting the Conference were the lack of sufficiently effective means to deal with the unseasonably hot and humid weather which prevailed throughout the week of the Conference, and the delay in travel reimbursement subsequent to its close.

There was general agreement on the quality of the after-hours program.

- Planned activities for the evening sessions were most appreciated to help in the socialization of the entire group.

- The extra curricular activities for both the wives and conferees were the best arranged I have had the pleasure to observe and participate in.

- I really appreciated the extra curricular activities. These were well planned and enjoyed.

Several participants stressed that their criticism was not intended to reflect negatively on the Conference itself but was offered only as a guide to improving future conferences.

- I feel that meetings of this type are necessary and will be improved upon in the future as more experience is gained in the development and use of manpower needs data.

- The critical comments above must not be interpreted as disappointments in this conference. The overall feeling is positive. The seminar will be of help in the future.

- I felt that this was one of the more fruitful conferences that I've attended.

- All in all, it was a good conference.

APPENDIX B

METHODS AND PROCEDURES

Selection of Participants

Letters were sent to all State Directors of Vocational Education, Research Coordinating Units, State Labor Departments and Employment Services and to Universities engaged in vocational manpower research or vocational education planning, inviting each to nominate candidates for admission to the institute program.

Nominees then forwarded completed application forms and data sheets. The director reviewed all applications and selected those candidates who appeared to be best qualified to participate in the institute. The final selection attempted to arrive at representation from each of the above groups while also maintaining a good geographical distribution.

In order to be eligible for nomination the candidate was required to have some responsibility for determining educational program needs and/or state or local manpower needs. The nominating unit was encouraged to select persons who would be able to contribute to as well as benefit from a training institute of this type.

A stipend was granted to participants for room and meals and round trip travel expenses also were paid. Wives and families were welcomed to attend at their own expense.

Eighty-six conferees from 39 states attended the Institute, of these 55 represented vocational education; 13, community colleges; 10, the employment service; 5, the labor department; and 3, other areas. In addition there were 21 speakers representing the above agencies as well as private research organizations, universities and other Government agencies.

Structure of Programs

Daily sessions were structured into three phases: 1. morning lectures followed by question and answer periods; 2. afternoon workshops with approximately 20 participants in each; and 3. late afternoon assembly to present reports of workshop findings.

Evaluation Procedure

Evaluation of the Conference was based upon participant response to a questionnaire which was mailed to them one week after the close of the Institute. Its purpose was to identify areas which had been helpful to the participants, to determine the role the Institute had played in fulfilling their needs and meeting their expectations, and to solicit suggestions which would be of assistance in planning future Institutes. A second questionnaire was sent out in February requesting information on studies initiated or changes in methods instituted as a result of the Conference.

THE UNIVERSITY OF CONNECTICUT
CONTINUING EDUCATION SERVICES

APPENDIX C

LETTER OF ANNOUNCEMENT

The University of Connecticut is conducting a summer training institute on Manpower Information for Vocational-Technical Education. The agenda for the institute has just been completed and is enclosed.

Prominent speakers from the U.S. Office of Education, Universities, and State Vocational Education Departments are being contacted to address the conferees.

As you may note, the conference will be concerned with the need, sources, and use of manpower information. It is designed particularly for vocational educators at the State level who are concerned with planning and developing vocational-educational programs and for those who have the responsibility of coordinating and analyzing manpower information for these purposes.

Representatives of the United States Office of Education, which is sponsoring the institute, have suggested that we write to you concerning participation of individuals from your state. We invite you to attend and would appreciate your nominating one or two other appropriate persons. Travel and subsistence will be paid to participants. A brochure on the conference and additional application blanks are enclosed. Due to the shortage of time before the institute, a prompt reply will be appreciated.

If you wish any further details, please feel free to call or write me.

Sincerely,

David Pinsky
Institute Director

DP/w
Encs.

STORRS, CONNECTICUT 06268

APPENDIX D

THE UNIVERSITY OF CONNECTICUT
Labor Education Center

Announces a

Summer Research Institute

on

Manpower Surveys For Vocational - Technical Educational Planning

1881

to be held on Campus

Storrs, Connecticut
University of Connecticut
July 7 - 12, 1968

under sponsorship of the

U.S. Dept. of Health, Education, Welfare
Division of Comprehensive and
Vocational Education Research

DETACH AT FOLD

UNIVERSITY OF CONNECTICUT SUMMER RESEARCH INSTITUTE
Application for
Conference on Manpower Surveys
For
Vocational-Technical Educational Planning

Name ______________________________

Position ______________________________

School or Department ______________________________

Address ______________________________ Phone No. ____________

Responsibility or Activity in Vocational Education or Manpower Research or Planning

____

____

____

Kindly complete above and mail to:
Summer Institute U-13, Labor Education Center, University of Connecticut, Storrs, Connecticut 06268
Telephone: 203 429-3311, X-336 or 796.

DETACH AT FOLD

Manpower Surveys for Vocational - Technical Educational Planning

July 7th thru 12th

PURPOSE

The general purpose of this Institute is to bring together vocational education, labor department, employment service, university and other personnel engaged in manpower research and planning, and to develop an understanding of the cooperative planning and techniques needed to conduct manpower surveys and to analyze and implement their findings.

CONTENT

The following topics will be discussed:

- The Changing Manpower Picture
- Technological Changes and Job Requirements
- Need for Manpower Surveys from the Vocational School Viewpoint
- Techniques of Area Manpower Surveys
- Manpower Projection on a State or Area Basis
- Surveys of Job for the Hard Core Unemployed
- Coordination in Vocational Programs Education Department, Labor Department, Employment Service, University
- Application of the Survey
    - a. The Curriculum
    - b. Guidance
    - c. Facility Planning
    - d. Communication with other groups

PARTICIPANTS

Those participating in the Conference should be persons who have some experience in and responsibility for determining vocational-educational programs or present and future manpower needs.

Persons interested in attending and participating in the conference should complete the application blank on the last page of this brochure.

Please return your application within a reasonable period as grant scholarships will be limited to 100 persons.

RECOMPENSE

A stipend of $75 will be granted to participants for room and meals. Facilities for individuals or families are available at reasonable costs on campus. Tourist air fare from point of origin to Hartford will be paid. Those traveling by car will be given equivalent air fare.

LOCATION

The campus is located in a rural area 26 miles northeast of Hartford, Conn. It is known for its beautiful setting and rolling hills. During the summer a variety of recreational activities are available on campus.

COORDINATING AGENCIES

Univ. of Conn. — Labor Education Center
Univ. of Conn. — School of Education
Connecticut Education Department
Connecticut Labor Department

THE UNIVERSITY OF CONNECTICUT
CONTINUING EDUCATION SERVICES

APPENDIX E

LETTER OF ACCEPTANCE

We are pleased to advise that you have been accepted to the Summer Institute on Manpower Information for Vocational-Technical Education, July 8-12.

Detailed information on travel, facilities on campus, activities for families, and other pertinent data will be sent to you in about two weeks.

Sincerely,

David Pinsky
Professor of Labor Education
and Institute Director

DP/w

STORRS, CONNECTICUT 06268

APPENDIX F

PROGRAM

Monday - July 8

Chairman - David Pinsky, Labor Education Center,
University of Connecticut
Conference Director

7:00 - 8:30 BREAKFAST - Shippee Hall

MORNING SESSION - Music Building, Room 101

9:30 - 10:00 Welcome and Conference Orientation

10:00 - 12:00 NEED FOR MANPOWER INFORMATION

Raymond F. Male, Commissioner of Labor,
State of New Jersey

Byrl Shoemaker, Department of Vocational Education,
State of Ohio

Emanuel Weinstein, Manpower Development Specialist,
U.S. Office of Education

12:15 - 1:15 LUNCH - Shippee Hall

1:30 - 3:30 WORKSHOPS ON MANPOWER INFORMATION NEEDS

Group 1 - Humanities 237

Group 2 - Humanities 241

Group 3 - Humanities 321

Group 4 - Humanities 311

Group 5 - Humanities 437

3:30 - 4:30 ASSEMBLY - Music Building, Room 101

Report of Workshop Chairmen and Discussion

6:00 P.M. COCKTAILS, RECEPTION AND DINNER

Faculty Alumni Center

Tuesday - July 9

Chairman - Herbert Righthand, Director of
Vocational Services, Connecticut
Department of Education

7:00 - 8:30	BREAKFAST - Shippee Hall
9:00 - 12:00	MORNING SESSION - Music Building, Room 101

AVAILABILITY OF MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATION - NATIONAL SOURCES

David Lafayette, Asst. Director of Manpower Division, U.S. Bureau of Labor Statistics

Vladimir Chavrid, Research Director, U.S. Employment Service

Murray Weitzman - Assistant Chief, Population Div. U.S. Bureau of the Census

12:15 - 1:15	LUNCH - Shippee Hall
1:30 - 3:30	AFTERNOON SESSION - Music Building, Room 101

AVAILABILITY OF MANPOWER DATA FOR VOCATIONAL-TECHNICAL EDUCATION - STATE AND LOCAL SOURCES

Alfred Horowitz, Research Director, Connecticut Labor Department

David Pinsky, Professor of Labor Education, University of Connecticut

C. W. Neubauer, Director of Program Services, Dept. of Education, Florida

Daniel Creamer, National Industrial Conference Board

6:00 P.M.	PICNIC & COOKOUT - Mashamoquet State Park

Wednesday, July 10

Chairman - Alfred Horowitz, Research Director
Connecticut Labor Department

7:00 - 8:30 BREAKFAST - Shippee Hall

9:00 - 12:00 MORNING SESSION - Music Building, Room 101

UTILIZATION AND EFFECTIVENESS OF MANPOWER DATA

Harold Duis, Service Program Officer,
U.S. Office of Education

John Odgers, Director of Guidance and Testing,
Ohio Dept. of Education

Richard Howes, Assistant Director, Division of
Vocational Education, State of Connecticut

Carl Heinz, Chief, Div. of Occup. Analysis & Career
Information, U.S. Employment Service

12:15 - 1:15 LUNCH - Shippee Hall

1:30 - 3:30 WORKSHOPS:

Group 1 - Humanities 237

Group 2 - Humanities 241

Group 3 - Humanities 321

Group 4 - Humanities 311

Group 5 - Humanities 437

3:30 - 4:30 ASSEMBLY - Music Building, Room 101

Report of Workshop Chairmen and Discussion

Thursday - July 11

Chairman - Herbert Righthand, Director of
Vocational Services, Connecticut
Department of Education

7:00 - 8:30 BREAKFAST - Shippee Hall

9:00 - 12:00 MORNING SESSION - Music Building, Room 101

COORDINATION IN OBTAINING MANPOWER DATA

Herbert Righthand, Director of Vocational Services, Connecticut Dept. of Education

Francis Woods, Manpower Coordinator, Div. of Manpower Development & Training, State of Connecticut

Edward Jakubauskas, Director, Industrial Relations Center, University of Iowa

Harold Duis, Service Program Officer, U.S. Office of Education, Washington, D. C.

12:15 - 1:15 LUNCH - Shippee Hall

1:30 - 3:30 WORKSHOPS ON COORDINATION

Group 1 - Humanities 237

Group 2 - Humanities 241

Group 3 - Humanities 321

Group 4 - Humanities 311

Group 5 - Humanities 437

3:30 - 4:30 ASSEMBLY - Music Building, Room 101

Report of Workshop Chairmen and Discussion

6:30 P.M. CONFERENCE BANQUET - Hotel America, Hartford

Speakers: William J. Sanders
Commissioner of Education, Connecticut

Renato E. Ricciuti
Commissioner of Labor, Connecticut

Friday - July 12

Chairman - David Pinsky, Conference Director
University of Connecticut

7:00 - 8:30 **BREAKFAST** - Shippee Hall

MORNING SESSION - Music Building, Room 101

9:00 - 12:00 MANPOWER INFORMATION TO MEET SPECIAL NEEDS

Herbert Brum, State Supervisor, Disadvantaged Youth & Work Studies Program, Ohio Dept. of Education

Earl Klein, Human Resources Development Section, U.S. Employment Service

Howard Matthews, Manpower Development & Training Division, U.S. Office of Education

12:00 - 1:00 Summary Reports by workshop chairmen and by conference chairman.

1:00 P.M. Adjournment

APPENDIX G

Summer Institute

July 8-12, 1968

MANPOWER INFORMATION FOR VOCATIONAL-TECHNICAL EDUCATION

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THE UNIVERSITY OF CONNECTICUT
CONTINUING EDUCATION SERVICES

APPENDIX H

EVALUATION LETTER

MANPOWER INFORMATION INSTITUTE

Dear Participant:

We hope you enjoyed and profited from your participation in the Manpower Institute held at the University of Connecticut.

In order to evaluate the program and to plan for future institutes, we would appreciate your completing the enclosed evaluation sheet. Please feel free to add whatever comments you wish, in addition to responding to the specific questions. Kindly return this form to us by August 5th.

I would like to remind you that next February we will again write you requesting a report on your use of manpower information since the institute in planning and implementing your programs.

We enjoyed your visit to the campus and your participation in the institute. I hope that we shall meet you again.

Sincerely,

David Pinsky
Professor of Labor Education
and Institute Director

DP/w
Encs.

STORRS, CONNECTICUT 06268

APPENDIX I

MANPOWER INSTITUTE FOR VOCATIONAL-TECHNICAL EDUCATION
University of Connecticut
July 8-12, 1968

EVALUATION FORM

1. What part of the program was most helpful to you?

2. Which was of least value?

3. What is your opinion of the format of morning lectures and discussion followed by afternoon workshops relating to the morning lectures?

4. Was the information presented useful to you in implementing your programs or meeting your needs?

5. Suggestions for improving future institutes or other comments:

____
Signature (optional)

____
Agency (optional)

THE UNIVERSITY OF CONNECTICUT
CONTINUING EDUCATION SERVICES

APPENDIX J

CONFERENCE ON MANPOWER STUDIES FOR VOCATIONAL EDUCATION

February 26, 1969

Dear Participant:

As indicated at the conference held last July, it was hoped that positive action would be taken in encouraging the study and utilization of manpower data in planning and implementing the vocational education programs of the participants.

Therefore, we are sending you the enclosed questionnaire to determine what progress you have made in this area. If you have made none, it is equally important that you return the questionnaire and so indicate.

Will you kindly complete the form and return it in the enclosed envelope. If you have any questions concerning this, kindly let me hear from you.

Sincerely,

David Pinsky
Professor of Labor Education
Conference Chairman

DP/w
Encs.

STORRS, CONNECTICUT 06268

APPENDIX K

University of Connecticut
Labor Education Center

Conference on
Manpower Studies for Vocational Education

MANPOWER STUDIES AND UTILIZATION QUESTIONNAIRE

______________________	______________
Institution	State

1. What manpower studies are now underway or have been conducted in your area since July 1, 1968?

2. Who is carrying out the study?

3. What part did your agency have in initiating, advising, or conducting the study?

4. How have you used manpower data in planning or revising curricula?

5. How have you used manpower data in planning for expansion or change in physical plant and equipment?

6. How have you used or are planning to use manpower data for legislative purposes?

7. Further comments or suggestions on the study and use of manpower data:

Questionnaire completed by ______________

Title ______________